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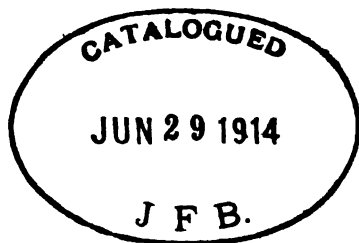
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THE EARLY RECOGNITION AND TREATMENT
OF MALIGNANT DISEASES OF THE UTERUS.*

BY HOMER I. OSTROM, M. D.

Our better knowledge of pathology, and with it more accurate diagnosis of neoplasms, are important factors in forming the belief which seems to be gaining ground in some quarters, that cancer, in the sense of malignant disease, is increasing.

Conditions of life constantly change, and with these, cell nutrition changes also. New forms of cell life either develop, or become manifest, and these contribute to the increase or decrease of erratic tissue building, and may on the one hand serve to augment their development, or on the other, serve to stay their growth. Thus new pathological forms appear, and existing forms disappear. Evolution is as true of disease as it is of animal life, and differentiation, quite as much as classification, belongs to clinical accuracy.

The well-founded belief that cancer is primarily a local

* Read before the Homeopathic Medical Society of the State of New York, October 4, 1900.

cell degeneration, will assist us in our early recognition of the disease. It is not necessary to wait for systematic involvement, or for the cachexia which indicates spreading of the malady, but from local conditions, cells, their method of growth, and arrangement, by which we are able to differentiate between malignant and non-malignant neoplasms.

From a clinical standpoint it is of the utmost importance that we not only distinguish the earliest possible evidence of such mistakes in cell development and growth, but that we should be able to anticipate the local pathology, and remove or prevent its predisposing causes. Hence, as the uterus is so frequently the seat of malignant growths, our work includes a consideration of the causes that predispose this organ, above almost all other organs in the body, for the erratic cell development and tissue arrangement characteristic of cancer. Such considerations will be of equal value, whether we regard cancer of hereditary, embryonal, bacterial, or of traumatic origin.

That the tissues of the uterus, *per se*, are concerned in the predisposition to the development of cancer, save that they are rich in quasi-embryonic cells, there is no reason to believe, but we may hesitate to exclude the life history and functional activity of the womb from the influences that determine local erratic cell development.

The uterus, in common with other of the female reproductive organs, shows a more or less rhythmic increase and decrease of activity; and in connection with this, a phase of life peculiar to this organ, periodical, frequently abortive efforts at construction, and the building up of another organism, which take place at each menstruation. The effort at oft-repeated folding and unfolding of nutrition; the effect of congestion, and again anæmia of an organ, of unavailing expenditure of tissue energy, which means not only peculiar, but intense local determination of constructive power, may well, if there is a general disturbance between waste and repair, a below-par condition of the system, be the initial step in such cell nutrition as results in over-nutrition, or under-stimulation of the cell nucleus, erratic development, division, and growth. Is it possible that naturally the female animal should

menstruate only at puberty? That the uterine sense, as manifested in the menstrual function, should not be violated, but should always be gratified by impregnation? Thus the abortive effort, which is a prodigal expenditure of energy, not recognized in untrammelled nature, would not take place, and a misdirection of force, which must always make against health, be avoided.

But gynecologists have to deal with conditions far removed from the natural state. It may be with the better understanding of social relations, the needs of society, and individual responsibility, we will be able to balance this waste of energy, and conserve the forces now misdirected in women; but at present the majority of women, because of their sex, are menaced during the period of their reproductive activity, by the possible development of types of cell degeneration, as the result of fruitless attempts at the evolution of higher cell types. May we not ask ourselves, if in this condition we have a predisposing cause of cancer.

Another passage in the life history of the uterus deserves our consideration. Up to a certain period, the system is preparing for the reproductive function; evolving cells remain dormant, or are slowly developing. These are finally ready to assume their functional activity, but their period of usefulness is shorter than the life of the individual, and in the process of their involution at the climacteric, are subject to such changes as finally result in their disuse, so far as the function of reproduction is concerned. The uterus, as a part of the reproductive system, then becomes a senile organ, an organ that may be classed among degenerating tissues.

In a state of general good health and well-being, this period is passed over without accident; there can be little doubt that it is fraught with danger when the system is below par, for the process of structural folding up is one of exceeding nicety, and may well give rise to the establishment of local conditions, favorable to the development of erratic forms of cell life, and differentiation of the cells themselves, which, in the aggregate, and in their arrangement, are incompatible with health.

As a matter of fact, malignant diseases of the uterus de-

velop most frequently at or near the folding up period of life. They belong to senile diseases, but possess the characteristics of embryonal tissues, and are insane as to arrangement and disposition. Such conditions are the result of irregular tissue nutrition and development, and of left-over cells, which, in the process of involution, are cast off, not lifeless, but possessing the power of reproduction, or else of further degeneration.

These considerations, touching the predisposing causes of malignant diseases of the uterus, may seem, not to be concerned with a discussion of their early recognition, but in view of an assured mortality when the pathology has passed beyond its initial development, and the immeasurable advantage that must accrue from any knowledge that will assist in anticipating such an issue, no aspect of the subject must be neglected, and if we can, by general direction and hygienic advice, assist women over these dangerous periods, we will accomplish much towards preventing the development of malignant diseases of the uterus. Moreover, fore-warned is fore-armed; knowing the possible risks that every woman runs during the continuance of her period of menstruation, and at its folding up, it is the duty of the physician to assure himself, even in the absence of definite symptoms, that the uterus has, with safety, ceased its function. I am not an advocate of the routine examination of women, but malignant diseases of the uterus frequently have their origin in an irregular and imperfect folding up of the organ, and this being recognized in its early and initial stages, we may happily avert a further and fatal degeneration. I, therefore, upon the earliest indication of pelvic derangement, make repeated examinations of women as they pass through the menopause. Women will object to this, especially the unmarried. But the resistance comes from ignorance, and it is the duty of the medical man to instruct his patients, not to alarm, but to educate. To place before them plain facts, not to gloss these over; to teach them the relation between cause and effect.

One aspect of the relation between child-bearing and the development of malignant diseases of the uterus belongs to the present discussion—the lacerated cervix.

That some connection exists between a lacerated cervix and the development of cancer of the uterus, we cannot doubt, but that that relation is so pronounced as to justify us in regarding it as cause and effect, is not as well established. The majority of women who have borne children suffer from some degree of laceration, and only a comparatively few of that number develop cancer of the cervix; we must, therefore, conclude that some other factors combine with the laceration, to cause malignant cell degeneration of the cervix.

Any errors of nutrition causing erratic or insane cell development and proliferation provides a fruitful soil for further departures from the normal type of cell construction. Such conditions are liable to exist in the cervix uteri, quite independently of a laceration, but may be associated with pregnancy and parturition. That a lacerated cervix favors local cell degeneration, is a fact of clinical observation, but any condition that induces erosion of the cervix, even of the simplest character—over-activity of the cervical mucous membrane, with excessive cell proliferation, or interference with the function of the cervical glands—may be regarded as favoring the multiplication of the quasi-embryonal cells of the uterus, and hence predisposing to the development of malignant neoplasms.

In view of the more or less intimate relation between lacerated cervix and uterine cancer, we cannot too strenuously insist upon the obstetrician making a thorough uterine examination before dismissing the case, and if he finds the cervix lacerated, and the tissues unhealthy, to institute treatment, and repair the laceration at the earliest convenient period. The immediate repair of the lacerated cervix seems to me to be of doubtful utility. It necessarily delays that rest after confinement which every lying-in woman longs for and requires. The relation of the parts to be operated upon is so disturbed that it is difficult to calculate for their accurate approximation. The suturing of the cervix is liable to interfere with the emptying of the uterus, and the proper discharge of the lochia. Should it become necessary to curette the uterus, the newly-formed cicatricial tissue would not endure the required divulsion. Therefore, in my own practice I pre-

fer to delay trachelorrhaphy until involution has been accomplished.

Thus far I have spoken only of the predisposing causes of malignant diseases of the uterus, and of the possibility of anticipating such conditions. Next in importance to preventing is the ability to recognize the earliest possible symptoms of cancer of the uterus, for only by such a recognition and prompt treatment can we reasonably hope to eradicate the disease.

In studying the early history of cancer of the uterus we must disabuse ourselves of the classical belief that pain or any distinctly local suffering is an essential symptom of the malady. Pain may be present, and frequently is, but the uterus may be completely occupied by malignant degeneration, without the presence of well-defined suffering, or pain that can be referred to the seat of disease. The significance of pain, therefore, as a diagnostic symptom of the early stages of uterine cancer, is: its absence does not contraindicate cancer; its presence is a valuable confirmation of the existence of the disease.

Depending upon the location of the disease, and the extent to which contiguous tissues are involved, are the degree and location of pain, when present. Pain in the sciatic, more rarely the crural nerve, in woman, should, other causes being eliminated, lead to a pelvic examination, and in a certain proportion of such cases, the cause will be found in derangement of the ovaries or uterus. If in the ovaries, distinctly ovarian symptoms have usually served to direct attention to these organs primarily, but if the uterus is the seat of cancer, the neuralgia may be the symptom that first calls attention to the local condition, and hence does not of necessity indicate the early development of malignant disease of the uterus, but when present should lead to an examination, and thus enable us to determine whether we have to deal with metritis, displacement, a malignant or an innocent neoplasm.

Of the two organs that lie in close proximity with the uterus, the bladder and the rectum, the former is more liable, in my experience, to suffer early functional disturbance than the latter. Hence, irritation of the bladder, shown in frequent

desire to urinate, with a sense of pressure, not tenesmus, unaccompanied with pathological urine, is a suspicious symptom. This condition has, in my practice, several times been the first observed symptom of cancer of the uterus. It does not necessarily depend upon involvement of the posterior wall of the bladder, for I have noticed it in the initial stages of cancer of the cervix. This same bladder irritation is very likely to accompany almost any derangement of the pelvic organs, and is by no means diagnostic of malignant disease, but inasmuch as it quite constantly accompanies cancer of the uterus, we cannot be too prompt in assuring ourselves of its significance.

Age is an important factor in the development of cancer, and should be taken into consideration in making up a diagnosis, in a given case of cancer of the uterus. But here we encounter the question of differentiation between the varieties of cancer, carcinoma and sarcoma. Broadly speaking, carcinoma is a disease of advanced age, being rarely found before the twentieth year, and being most frequent in the uterus during the first years following the cessation of menstruation.

Sarcoma, on the other hand, is a disease of any age, possibly more frequent in youth. Therefore, for the purpose of diagnosing malignant diseases of the uterus, without reference to the variety, the age of the patient will have no more value than that of confirming the opinion based upon other conditions. To the extent to which the variety and form of cell degeneration affect the degree of malignancy, age will be of importance in the question of prognosis.

The most suspicious and characteristic symptom in the early history of malignant diseases of the uterus is irregular uterine discharges. I do not mean irregular menstruation. This is natural for many women, and frequently marks the folding up of the reproductive function and system. But the meaning of the discharge is vastly different when it reappears after having ceased; or when between the monthly periods—they recurring at regular intervals—a discharge appears; or when there is a sanious, "constant leaking," sufficient to require protective dressing.

The discharge from malignant disease of the uterus is not clear blood, but is watery, of a muddy color, and foul odor, indicating tissue destruction. Uterine hemorrhage is more characteristic of an innocent fibroid tumor, though at times the discharge from this, especially when necrotic portions of the tumor remain in the uterus, may become watery and offensive, and thus be misleading as to its true nature. But in innocent growths of the uterus the chief discharge is blood, and if for it, we are consulted, the indications of decomposition are secondary to the hemorrhage. In malignant diseases the conditions are reversed, the hemorrhage being secondary to the necrotic discharge, and still it must be confessed that in this differentiation we have not positive signs of malignant or benign uterine diseases. We feel, more and more, that no one symptom is diagnostic, we must fit each part of the puzzle in its proper place in order to make the complete picture, but what I wish to emphasize, in relation to the discharge, is that it is an early symptom, and while it may occur in non-malignant diseases, in malignant diseases of the uterus it is always present.

Therefore, no unhealthy discharge from the uterus should be neglected. A thorough examination should be made, and if we can exclude myomata, the crucial test of the microscope should be applied without delay.

Much has been written and said concerning the appearance and feeling of uterine cancer in its early stages, but beyond the assurance that some unhealthy process is taking place, I do not think the condition of the mouth of the uterus, to which this method of examination is limited, affords very positive evidence of the early stages of malignancy. Beyond a degeneration of the tissues of the os, which is not of necessity malignant, little can be told by the eye, and beyond a softening, or induration of the tissues, little is indicated by the touch. The changes which we are thus able to discover in the uterus are chiefly useful in early arousing our suspicions of malignant development, and as such clinical assistants, their value cannot be overestimated. Any form or degree of tissue change is worthy consideration, especially when the organ so affected is under pathological suspicion,

as the uterus, and, therefore, while there is nothing absolutely diagnostic in the appearance and touch to mark the early stages of uterine cancer, any departure from the normal structure of this organ should receive prompt and vigorous attention, and is to be regarded as a possible beginning of malignant pathology.

To condense what I would say in reference to the early recognition of malignant disease of the uterus:

The uterine cells which remain more or less inactive until the period of puberty, at which time they should develop with a view to reproduction, are liable, as embryonal cells, to miss their vocation, and multiply after their kind, or degenerate.

The life history of the uterus, involving abortive attempts at reproduction, which each menstruation represents; the possibility of erratic cells remaining over at the folding up of the uterine function, and the favorable location for the development of cancer caused by a lacerated cervix.

Pain is not always present, but sciatica and crural neuralgia in women at the time of the menopause, who have borne children, should lead to an examination of the pelvic organs. The same holds true of irritation of the bladder.

My working diagnosis of the early or initial stages of malignant diseases of the uterus is based principally upon irregular uterine discharge, differing in time and character from the normal menstrual flow; sciatica or crural neuralgia, and irritation of the bladder. This group of symptoms existing, other symptoms will be found that confirm the diagnosis of malignancy. Examination of the uterus will show cell degeneration and erratic cell formation and proliferation, which mark the beginnings of malignancy and substantiate the tentative diagnosis of cancer.

Following the recognition of the early symptoms of malignant diseases of the uterus, the question of treatment presents itself.

Until we are in possession of less radical and equally certain methods of treatment, our reliance must be placed upon the total removal of the infected structures. Nothing that falls short of this can eradicate the pathological focus. As the disease advances, spreading to contiguous and remote

structures, this treatment is of doubtful utility, for from the very nature of the neoplasm, spreading by means of the blood vessels (sarcoma), and by the lymphatics (carcinoma), it is next to impossible for us to set a boundary to our operation, and with certainty to amputate or excavate beyond the line of infection. I, therefore, do not advocate extensive operations for cancer of the uterus, save in its early stages, when there is no reasonable doubt but that the disease is still local and confined to the structures that can be removed. Then, before lymphatic involvement or contamination of the adnexa and broad ligament, total hysterectomy, with a thorough clearing out of the pelvis, offers a reasonable prospect of cure. Remove thoroughly and as early as possible the area of cell-growth and infiltration, and there is no reason to anticipate that another focus will develop, if, in after-treatment, due regard is had to the below-par state of the system, which made the local development a possibility.

As the result of experience each operator will establish his own method of operating, the differences having to do with minor questions of technique. At these we should not cavil; results are the sole standard of criticism of work.

When possible, and the possibility depends upon the proportion between the part to be removed and the canal through which the removal is accomplished, the vaginal route should receive the preference over the abdominal opening. The advantages of the low operation are numerous, the disadvantages lie chiefly in the direction of limited space for manipulation, but this becomes less apparent with increasing operative skill.

I do not often find it necessary to open the abdomen in connection with the vagina, in the early operation for uterine cancer, for when the disease has become so extensive as to render its removal through the vagina impossible, it may be questioned whether any operation, however extensive, can avail much, but I do not hesitate, having begun the operation from below, if the vaginal route does not afford satisfactory access to the structures that I consider should be removed, to extend the operation to the abdomen, and so add the advantage of dealing with the diseased area from above and

below. The supra-pubic opening does not greatly increase the risk of the operation. True, it involves more manipulation of the intestines, which is one of the chief sources of shock and peritonitis in abdominal surgery, but this is frequently more than counterbalanced by the shorter time consumed in the operation, when we are able to reach the disease from two points, and are also in position to aid the work of our hands with our eyes.

I do no longer use clamps in my vaginal hysterectomies. Cases may arise in which their use is called for, but I find it difficult to draw a picture of such emergencies.

When we compare the facility and certainty with which a ligature is applied to the individual artery; the absence of suffering the rapidity, and cleanliness of convalescence, with the uncertainty, the suffering, the uncleanness, and slow convalescence that are necessary features of the clamp operation, the advantages belong to the ligature.

In my vaginal hysterectomies I use rather fine chromicized catgut, tying the uterus out between the uterine and ovarian arteries. The ligature with which I secure the ovarian artery I leave sufficiently long to enable me with it, to place a running suture along the free borders of the broad ligament, down to the pedicle of the uterine artery, thus closing the cellular tissue spaces on both sides of the pelvis. I find no trouble in avoiding the ureter. By keeping close to the uterus, after tying the uterine artery, the normally placed canal is out of the line of incision. Of course the conditions are different when the entire broad ligament is removed, or when the ureters take an abnormal course. As soon as the uterine artery is tied, the broad ligament retracts towards the pelvis, and so draws the ureter out of the range of the operation.

I make no attempt to suture the anterior and posterior peritoneum, but by packing, first against the broad ligament stumps, and then between them, the latter lifting the peritoneal flaps, drainage is provided for, and rapid closing of the abdominal cavity insured. The packing remains in position for five or six days, and is then removed piece by piece, with the aid of peroxide of hydrogen.

The discussion of methods of removing the uterus per vaginam for malignant diseases would be incomplete without reference to the admirable work done with the electro-cautery by the late Dr. Skene, and the instruments he devised to perfect his method of operating. While I have repeatedly witnessed Dr. Skene's operation, I have personally had no experience with it. However, in studying carefully the operation and its results, with a view to perfecting my own technique, I have not been convinced of its superiority over the use of the knife and ligature, which accomplish the removal of the uterus more quickly, as thoroughly, and insure quite as rapid and certain convalescence as can be claimed for the electro-cautery.

But, as we have said, results, not methods, are open to criticism, and if one surgeon can operate better with the electric current, and another better with the knife and ligature, each must be at liberty to work in his own way, and according to the methods which satisfy his honest requirements



THE PREVENTION OF PERINEAL LACERATIONS.

BY REBECCA ROGERS GEORGE, M. D.

While the subject of perineal lacerations is one that apparently has been thoroughly discussed until well understood by the majority of medical practitioners, yet the large number of patients suffering from the effect of these injuries who come into the hands of the gynecologist present conclusive evidence that there is yet much to learn as regards the best means of avoiding these troubles.

There seems to be a great disparity of opinion among the profession as to the prevention of lacerations; some physicians claiming rarely or never to have had such a result; others asserting that, after learning how to conduct a labor properly, they have had no resultant vaginal or perineal tears, while others, equally honest and capable as the first two classes mentioned, admit the frequency of these troubles, especially among the upper and middle classes of American women.

In reviewing this subject, therefore, to gather and winnow out the practical and helpful facts from the visionary and ideal theories afloat, let us first consider some of the factors leading to the cause of perineal lacerations. Perhaps first in importance and frequency might be mentioned excessive rigidity or defective distensibility of the perineum; while rapid labor, disproportionate size of the head, a narrow and acute pubic arch, œdema of tissues from prolonged labor, instrumental delivery, and mal-presentations all predispose to lacerations of vaginal and perineal tissue. It is doubtless true that there is a much larger per cent. of these cases due to defective distensibility than to the other conditions mentioned, and the question naturally rises to the cause of so many unnaturally rigid and inelastic perineæ.

Among the so-called working classes, when the girls are brought up to do manual work from early childhood and the women are on their feet the greater part of the day, washing, ironing, baking, sweeping, amid the thousand other duties incident to housekeeping and child-rearing, inelastic perineæ

are not common, and physicians practicing in country districts or small towns where the most prosperous women do their own housework, probably with good reason claim little or no experience with perineal tears among their confinement cases; not because they are more skilled in the obstetric art than their city confrères, but because their patients are more nearly normal physically.

On the other hand, girls who are brought up as tender house-plants, no work of any kind being required of them lest it interfere with their school duties, whose only chance for exercise is the walk to and from school, or the occasional forced activity in the gymnasium are ill fitted for the functions of adult life, and especially so for child-bearing.

It is among this class of patients, particularly if primiparæ, that the physician many times finds it impossible to preserve intact the vaginal mucous membrane or perineal body, for when the best developer of elasticity of these tissues, viz., the regular and continued advance of the presenting part, fails to accomplish more than a three-inch gateway for a five-inch head, and the perineum is stretched to tissue paper thinness, "gloving" back the perineal tissues or delivering between pains are both equally impossible (in my experience), without a resultant tear.

Measures to avoid rupture are many and varied, all looking, however, toward prevention of expulsion until dilatation is complete, and not during the acme of a pain.

Hohl's method of applying pressure not to the perineum, but to the presenting part, I have found to be a good one. With the thumb applied anteriorly on the occiput, and the first and middle fingers on the posterior part of the presenting head, such upward and forward pressure can be exerted as to prevent premature expulsion, and to make available all the unoccupied space beneath the pubic arch.

Goodell's method of hooking two fingers into the rectum and drawing the perineum forward during a pain to remove the strain from the thinned borders of the vulva, and to promote its elasticity, is open to the serious objection of causing much additional discomfort to the patient before delivery, and leaving her with bruised and sore rectal tissues afterward.

I much prefer, and in the majority of cases use, Fashen-

der's plan of placing the patient on her left side, and sitting on the edge of bed so as to seize the presenting head between the index and middle finger of the right hand applied to the occiput, and the thumb thrust into the rectum so as to hold the head under complete control. By this means the violent expulsive pains do not succeed in forcing delivery until the tissues have had a chance to relax. After the head had descended sufficiently for direct pressure to be exerted upon the frontal region Rilgin's method of manual expression is sometimes practicable. This consists in lifting the head upward and forward through the vulva by pressure made with the tips of the fingers behind the arm close to the extremity of the coccyx.

Rectal expression may also be possible in appropriate cases.

Lacerations are, of course, more frequent in mal-presentations, especially when the occiput rotates posteriorly, and the Walcher position has occasionally served me well in such an emergency, for the slight increase in the conjugate diameter secured by placing patient across the bed, with hips at the edge and legs hanging over so as to exert traction, is sometimes sufficient to terminate labor speedily, and with safety to the soft parts.

In cases of extreme reflex irritability, when the impulse to bear down is irresistible, I believe chloroform to be our most useful agent, for it not only enables the physician to keep a better control of the expulsive forces, but in many cases certainly has a relaxing effect on the rigid perineum as well.

I believe, however, that the best time to use measures for averting a lacerated perineum is before the danger is imminent. To this end I am in the habit of urging my pregnant cases to take plenty of daily exercise.

Light housework, moderate stair-climbing, and regular walks in the open air, do much toward promoting normal relaxation of tissue during confinement.

After labor begins a hot sitz-bath, *i. e.*, a bath kept constantly hot for twenty minutes or longer by frequent additions of hot water, with a blanket round the patient's body to retain the steam, has a relaxing effect on both os and perineum in a large number of cases.

The continued hot douche is, perhaps, equally relaxing in its effects, but is open to the objection of washing away the lubricating mucus, which should be abundantly present during the second stage.

Another plan which I have sometimes found helpful throughout this stage is to use pads of absorbent cotton wrung out of very hot water and applied frequently to the perineum.

Relaxation is not only promoted, but this measure aids materially in lessening the rectal and perineal discomfort incident to the period just previous to expulsion.

At the time of delivery there is an undoubted gain accomplished by remembering to push back the tissue just underlying the pubic bone, but that it is always possible, except in cases of extreme abnormality, to glove back the thinned perineum and deliver between pains, as claimed by a recent writer of note, I very much doubt.

Surely, in cases of marked lack of elastic development in primiparæ, or in disproportionate size of the head, or when the pubic arch is diminished by approximation of the pubic rami, or when the tissues are rendered friable by a lengthy second stage, this wholesale claim of being able to glove back the perineum and deliver between pains, without injury to the maternal parts, must prove visionary when we come in actual contact with these cases. Many times the head is successfully delivered without injuring the soft parts, but the oncoming posterior shoulder accomplishes the mischief we have tried so hard to avoid, although, by using the supporting hand as a bridge for the shoulder to glide over, it is sometimes possible to avert a laceration.

If rupture is imminent some authorities advocate turning the shoulders so that they clear the vulva in an oblique or transverse diameter, while a recent writer on the subject suggests a plan which is certainly worthy of a trial.

He says: After the head is born it is my practice to insinuate beneath it, on the floor of the vagina, two fingers of the managing hand, their dorsum being well anointed, and with these to protect that floor from harm. By spreading the fingers just a trifle the acromion process is allowed to rest between them, and the pressing surface is thus made broader

and flatter. This position is maintained until the shoulder shall have passed over the vaginal ostium, when the elbow is gone after and treated in the same way.

It is a question in my mind, however, whether the increased tension caused by the fingers between the shoulder and perineum would not also increase the tendency to a tear.

When rupture is inevitable, lateral incision through the vulvar ring to relieve the strain is well worthy of a trial. By this measure, known as episiotomy, the perineal muscles are left intact, and the wounds, owing to their location and direction, heal spontaneously, there being no gaping muscle ends to retract and keep them open.

In using this measure, care should be taken to incise through the ring of chief resistance, not transversely through the middle of each labium majus as formerly suggested, but at a point about one-third of the way from the middle of the perineal rim and the middle of each labium; the scissors to be held obliquely and pointed toward the tuberosity of the ischium.

It is claimed by such a noted authority as Dudley that when such an incision is made one cut is sufficient, the other side to be left intact, and even if during delivery the tear should extend beyond the incision, its direction does not imperil the sphincter ani muscle.

While this resort has been called essentially the operation of young physicians, I believe it could many times be used by older practitioners to the patient's advantage.

When instrumental delivery is imperative lacerations are a frequent result, for if the presentation be normal and nature does not effect an early delivery, the tissues are usually friable from long-continued pressure; or if the application of forceps is necessary because of a mal-presentation, a laceration is much more liable to occur than in non-instrument delivery.

It is needless for me to reiterate the well-known facts, however, that a forceps delivery is much less liable to cause a laceration if intermittent traction is made, and the direction of the traction determined by the kind of presentation in each case.

In spite of all the arts of midwifery, however, there are many occasions when all precautionary measures fail, and delivery, whether natural or instrumental, results in a more or less extensive laceration.

Unless the sphincter ani be involved, however, the repair of such an injury is not an operation to be dreaded, but as to just how or when this should be done—well, as Rudyard Kipling says, "That is another story."

MEDICAL TREATMENT OF DIPHTHERIA.

BY CHARLES BRUCE KERN, M. D.

In discussing this phase of diphtheria I realize that there are very many different opinions as to the method of its treatment, perhaps, in fact, as many as there are physicians. I know full well that we cannot all agree as to a certain and fixed method of treatment of diphtheria, as each one has his own peculiar and individual idiosyncrasy guiding and directing his motive and work, and this gives to each one a different view-point, and in reality this latter is the basis of our differences, that of having different view-points.

For the last few years antitoxin as a specific in diphtheria has been discussed pro and con, and even yet our journals teem with articles either for or against its use. One writer will give explicit directions of how, when, and why to give antitoxin, and adding that no fears need be entertained as to the result, for it is a certain and positive cure, while the next article will say that antitoxin is very poisonous and causes many deaths which homeopathy would have cured. Of course, it is very largely a matter of experience as to which method of treatment we prefer, but it seems to me that we should be broad enough physicians to see the good in all methods, and if it will assist us in healing the sick, which should be and is our purpose, we should employ it, for no one man can know what is best for every case.

In looking over a new practice I find this recommended as the first thing to be done in a case of diphtheria: "It (antitoxin, should be given in all cases as soon as the diagnosis is made. After the third day reaction is deficient, owing to cumulative effect and mixed infection."

Again, other writers equally as well versed in their subject, recommend strict homeopathic medication, and from the reports published we may well infer that homeopathy has specifics, if we are only willing to take the time and the pains necessary to individualize our cases sufficiently, to find the specific drug in each case. There is probably no disease where it is more difficult to find the properly-indicated

remedy than in diphtheria, inasmuch as the patient usually is not able to give you any symptoms; in other words the symptoms are mostly confined to the objective variety, frequently the best group of symptoms. It is much easier to prescribe for the first or inflammatory stage, for then the symptoms are much more evident than they are in the later stage, when the exudation takes place, but a little patient investigation is time well spent, as the proper remedy once found seldom has to be changed within the following forty-eight hours, and, indeed, frequently, it happens that the properly selected remedy does not have to be changed at all, but will entirely cure the case.

All authorities agree that some form of mercury stands first as the nearest simillimum to diphtheria, especially in its graver aspect. We owe our knowledge of the use of mercury to that eccentric, but at the same time eminent physician, Dr. Wm. Douglass, of Boston, who achieved great results from the use of heroic doses of calomel in the first epidemic of diphtheria in this country in 1735.

I suppose all of my hearers know something of the famous case of poisoning in New York with the cyanide of mercury, in which the illness simulated diphtheria, and the patient was treated for that disease and supposedly died from the effects of it, but later it was discovered that death was due to poisoning with this drug.

Dr. Von Villiers first brought this remedy to notice as of great value in the treatment of diphtheria. He claimed to have lost only two per cent. of the cases treated with it. The indications for its use are: Tonsils covered with leathery patch; pharynx and uvula covered with a dirty gray exudate; pulse feeble, small, quick, intermittent, and high, 130-140; extreme prostration, pallid and sodden countenance; moist skin, saliva thick, tongue coated brown or black.

Intense and threatening from the start, tendency to membranous formation, nares involved as well as pharynx; indeed, the more widespread the infection and more intense the symptoms, the better indicated. Putrescence, with foul smelling breath and odor extending outside the sick room, is another characteristic symptom.

The iodide of mercury is especially adapted to strumous subjects, in whom the sympathetics are involved very early in the attack, and the other symptoms are mild.

Mercurius corrosivus is indicated in the incipient stage, when prostration not so great, very little exudate, and all the symptoms indicating mild attack.

Mercurius protoiodide has swelling of the throat and formation of membrane beginning on right side, together with fetid breath and flabby tongue, showing imprint of the teeth, and especially if have thick yellow coating at the base of the tongue.

Kali bichromicum ranks high in the treatment of diphtheria, especially when have laryngeal complication. In this have mucous membrane deeply affected and ulcerated; painful, difficult swallowing; stringy tough mucus; cough hoarse and metallic; exudation yellowish or yellowish white color, and is of a firm fibrous nature, thrown off in large quantities, covering both tonsils and tending to extend into nares and larynx.

Apis mel. becomes efficient when we have dull red pharynx, swallowing difficult, the uvula œdematous and elongated, tongue thickly coated or thick and dry, particularly if patches of membrane are not heavy. Stinging dryness and burning in throat; mucous membrane glossy and purple; œdematous swelling of face and hands; scanty urine.

Carroll Dunham valued lachesis very highly and used it, "when constitutional symptoms predominated over the local." Along with throat symptoms of slight intensity there was great prostration, slow, feeble pulse, cold clammy sweat and pain out of proportion to the local lesion. Exudation worse on left side; lividity and ulceration of mucous membranes, painful deglutition.

Arum triphyllum becomes of value when we have very acid discharges from mouth and nose, which excoriate and form large crusts about orifices; diphtheritic deposit excessive and mixed with more or less ulceration; also have much involvement of glands and deeper tissues and adjacent skin.

In *arsenicum album* we have a remedy which is not used enough in diphtheria, especially in those cases where the

throat is very much swollen, both internally and externally, when the membrane has a dark hue and is very fetid. There is a thin, excoriating discharge from the nose. The throat is oedematous, as under apis. The patient is restless, especially after midnight; urine is scanty. There is an adynamic fever with a great deal of somnolence.

Rhus tox. is very often indicated by the well-known symptoms of that drug in connection with extensive swelling of the lymphatic and cellular tissue.

Phytolacca becomes useful when case simulates follicular tonsillitis, but with very fetid breath and weakness unusual to that disease. Deglutition almost impossible; drowsiness accompanies prostration; constant inclination to swallow; nausea, vomiting, and diarrhea. Of no value in malignant cases.

Cantharides is indicated when throat looks like it had been blistered, burning and dryness of the mouth, which extends to throat and pharynx; constant desire to urinate, passing but a few drops at a time, etc.

Lycopodium should be used when exudation worse on right side, brownish red appearance of fauces, widely dilated nostrils with every inspiration. Red sand in urine, worse from cold drinks, better from warm.

Hydrochloric acid has considerable reputation among all classes of practitioners. Hughes recommends it in "the lesser degrees of toxæmia." In general the symptomatic indications are the same as those calling for its use in typhoid fever.

Crotalus horridus is the chief remedy when profuse epistaxis occurs, which marks many cases of a malignant type. This shows a decomposition of the blood caused by the poison in the system.

Other remedies might be mentioned for special symptoms, but we should be good enough prescribers to be able to individualize our cases and give the indicated remedy.

[Evidence is constantly accumulating to show the general good results from the use of antitoxin. Some of our best and most careful homeopathic prescribers in New York City consider its use the nearest approach to specific medication.

—EDITOR.]

THE TREATMENT OF PUERPERAL SEPSIS.*

BY GEO. R. SOUTHWICK, M. D.

A federal state in another continent is fighting for its life. Its forces are on the frontier, building defenses and vigorously contesting with an ever-increasing host of invaders. Modern cannon and the long range of the magazine rifle may delay the progress of the enemy, but his smokeless powder does not betray his presence and his naval guns are able to destroy the best defenses.

The fight is for life in puerperal sepsis. There can be no truce. The leucocytes hasten to the rescue. Nature throws up a wall of defense, a zone of inflammation infiltrated with leucocytes to prevent general infection of the organism, and she endeavors by phagocytosis to destroy the army of invading germs. Our prescriptions from the single remedy to the most composite drugs avail but little. The toxins continue their unseen but deadly work, and the naval gun is represented by the septic embolus which will destroy our patient in spite of every effort. Such a gun must not be mounted. We must aid Nature to maintain her line of defense, and, above all, the army of invasion must be early destroyed.

This means early diagnosis and prompt action. The temperature of the patient hangs out first the red lamp of danger, and there are few rules for routine practice which save us more anxiety than habitually to record the morning and the evening temperature for the first ten days in every puerperal case. If the conduct of labor has been strictly aseptic the temperature should not exceed 100° F. If it does the cause must be diligently sought, remembering that there is no such thing as milk fever. A rise in temperature after the ninth day scarcely ever is due to sepsis, though the writer has seen one case of clots retained in utero which produced it. Recurrent chills may be of malarial origin, but the microscope will reveal the plasmodium and establish the diagnosis. Typhoid fever may simulate sepsis, but Widal's reaction will

* Read before the Connecticut Homeopathic Medical Society.

distinguish it. Repeated chills and moderately high or a high temperature in spite of emptying and cleaning the uterus too often indicate a septic ulcerative endocarditis which is almost surely fatal. Mental emotion may produce a high and alarming temperature which shoots up like a rocket and like it falls, but does not recur as in sepsis. An evening temperature which diminishes on each successive evening indicates a favorable prognosis.

The writer believes that it is better to cleanse properly the uterine cavity twice unnecessarily than to neglect it once in case of suspicious temperature. My method is to cleanse and irrigate thoroughly the vulva first, then the vagina, next the cervix, and finally the uterine cavity. The finger is then made to touch every part of the uterine cavity, especially the corners near the fallopian tubes, by crowding the uterus down from above and forcing the hand partially into the vagina from below. The uterine cavity is thus cleansed by the sense of touch, and the operator can be sure of removing every bit of foreign tissue safely. The importance of this rule is illustrated by an autopsy I made on a case of puerperal sepsis, where the curette had been used, but all of the uterine surface had not been touched by the finger. A piece of firmly adherent placenta the size of a hickory nut was attached to the uterine muscle at the fundus. The contracting uterine muscle had closed partly around it, so that the surface of the bit of placenta was barely on a level with the surface of the uterine muscle, and therefore was not raked off by the curette. There are cases where the uterine cavity cannot be cleaned perfectly without the aid of a dull curette having a large dull loop for scraping the uterus. The use of this instrument requires care not to break down the wall of infiltration, Nature's barrier against the invasion of septic material, and it must be applied gently and evenly to every part of the uterine wall. The harsh use of the curette, and especially of a sharp instrument, only makes new wounds for inoculation and provides new channels for septic invasion. It is quite in fashion to cry down the curette in these cases, but the instrument is invaluable if properly used, and only in those cases where the finger has failed to examine every part of the

uterine cavity or has been unable to detach a piece of placenta. Under these rare circumstances it may be necessary to use a sharp curette to detach the mass under the control of the finger. The instrument should have a fairly stiff shank.

Following the use of the finger or curette the uterine cavity should be thoroughly flushed in every part with not less than a gallon of hot water, and then with a pint of dioxide of hydrogen mixed with half a pint of warm water and made to run through slowly while the tip of the irrigating nozzle searches every spot and corner of the uterus. Two points in the treatment thus far deserve some emphasis, the thorough dilatation of the cervical canal, if it is not already patulous, and the use of a steady stream at low pressure from a fountain syringe with the spray from the nozzle directed backwards. I have seen one case where considerable force was used from a bulb syringe and a single jet expelled forward from the nozzle and where severe chills and high temperature followed which suggested that septic material was forced into a fallopian tube though the cervix was perfectly patulous.

The next step in treatment is the insertion of an iodoform pencil in the uterine cavity, which slowly melts and smears the surface with an excellent antiseptic agent. The formula is as follows:

R	Iodoform.....	grams xx
	Gummi Arabici.....	
	Glycerini } aa.....	
	Amyli pur. }	grams ij
	Ft. Bacilli No. III.	

All septic lacerations are cleaned and then painted with tincture of iodine or a fifty per cent. solution of carbolic acid in iodine (equal parts of iodine and carbolic acid). Large aseptic gauze pads are then applied to the vulva.

Some physicians recommend loose packing of the uterus with dry iodoform gauze after wiping the cavity dry with sterile gauze. The plea is made that germs do not develop so fast under dry conditions. This would be true, only that the uterus is not and cannot be made or kept dry enough to inhibit germ growth; the gauze under these circumstances

retards rather than facilitates drainage and is liable to produce disagreeable reflex symptoms.

The irrigation of the uterus followed by the iodoform pencil is repeated daily for two or three days, when it is rarely necessary to continue the iodoform. Meantime the patient is freely stimulated and carefully fed. Much benefit is sometimes obtained by free catharsis. A high enema containing an ounce of Epsom salts is excellent, aided, if necessary, by hourly doses of one-tenth of a grain of calomel till a free movement is obtained. High turpentine enemata are especially beneficial if there is intestinal distention. Tympanites is often a symptom of bad omen and the beginning of septic peritonitis, though I have seen it due to what seemed to be a pure paralysis of the intestines. Prompt and vigorous measures must be taken at once to secure free action of the bowels. If the intestines once become overdistended it is very difficult to restore peristalsis. The distention increases. The bacterium coli pass through the thin walls and infect the peritoneal cavity, which is probably septic, and death soon follows. Mere cessation of intestinal peristalsis without distention is not so serious; but if the latter is beginning there is nothing that does more good after cleaning the uterus than free action of the bowels. Strong drugs to force a reduction of temperature are not only useless, but, by disturbing the temperature, deprive us of our best means of judging of the patient's condition and the results of treatment.

A large coil of small rubber tubing laid on the abdomen with two or three layers of flannel between and arranged for the steady running of cold water through it from the cold water to the wash bowl has been very useful to reduce the temperature and to soothe the patient.

There remains for consideration another class of cases not easy to recognize, but which always end fatally unless seen and treated early, i. e., where the infection is disseminated by the lymphatics through the uterus, where it soon reaches the peritoneum. No amount of local treatment of the uterine cavity will remove the septic material in the walls of the uterus and which is beyond reach unless a hysterectomy is performed before the peritoneum is seriously invaded and the latter is

carefully drained. Some otherwise hopeless cases have been saved in this way, but such an operation under these circumstances is of a desperate character. The indications are obscure, but the following circumstances are valuable in reaching a conclusion: The examining finger finds an empty, boggy uterus, and there may be a sense of fullness on careful examination posteriorly and at the sides of the uterus. Vomiting or tympany, or both, may be present. There is a look of collapse about the face and profound depression of the organism. The pulse is small, soft, or thready. The temperature may be subnormal or not much elevated. In fact, the pulse, rather than the temperature, is to be considered, as the latter is misleading in septic peritonitis.

If the uterine cavity has been carefully cleansed, and these symptoms and local conditions are present, there is good reason to believe that septic lymphangitis of the uterus is present. Repeated chills and no improvement after irrigation suggest also pyæmia or ulcerated endocarditis, especially if there has been previously valvular cardiac disease, when no operation will avail. The indications for hysterectomy for puerperal sepsis are fortunately rare, but, when present, the patient will surely die without an early operation.

The writer has seen no benefit from the inunction of the silver salts (Credé's) and cannot be positive of results from the injection of antistreptococcic serum. Some favorable cases have been reported, but it can be only recommended as an adjuvant in treatment, as the results are uncertain; but no harm has followed as far as I am aware. Echinacea is highly lauded, but I have had no experience with it. Lachesis, secale, arsenic, and strychnia in material doses are my chief remedies.



BRONCHIECTASIS IN CHILDREN.

BY BERT J. MAYCOCK, M. D.

The fact that bronchiectasis occurs not infrequently in children, that it is easily mistaken for either a simple bronchitis or for pulmonary tuberculosis with a resultant error in prognosis, and that the works on "*Diseases in Children*," with which I am familiar, either ignore it or merely casually mention it, must be my apology for presenting this brief paper.

While in many cases the symptoms do not differ materially from those present in adults, yet in others there are enough differences to warrant a special description.

It almost invariably attacks hand-fed, badly nourished, rickety children, and is always secondary to some previous trouble with the lungs or bronchi.

The dilatation of the bronchial tubes may be pretty general throughout the lungs, or may be localized either in the base or in apex. The latter, in my experience, are the most hopeful cases, because the location favors drainage.

In every child, with a cough, there is probably a temporary dilatation of the bronchi at the beginning of the cough, before opening at the glottis. In the majority of cases there is enough elasticity and muscular tone in the bronchial walls to enable them to contract at once when the pressure is relieved.

But in the case of these flabby, weakly children with no resistance to speak of, bronchiectasis is readily developed. Especially is this true if there has been a preceding disease, such as measles, diphtheria, or whooping cough. Here the influence of the specific disease still further weakens the child.

As the tubes become distended, they do not readily become emptied of the contained mucus, which induces a soggy, softened condition, or, in the case of the finer tubes, the lumen may become occluded and collapse of that portion of the lung will ensue. Then we get an outside influence in the shape of traction, pulling the walls apart, and an added internal

factor, as the air pressure within the tube endeavors to fill up the space left by the collapsed lung.

All of these causes probably act together in the production of this disease.

As the pulmonary mischief continues, it gradually affects the inter-alveolar connective issue, with resultant fibrosis and increased traction.

The physical signs of bronchiectasis are necessarily chiefly those of the primary disease—bronchitis, broncho-pneumonia, or what-not.

Added to these, however, we begin to get evidences of cavernous signs and apparent rapid destruction of lung tissue. The tubular or cavernous breathing is accompanied by sharp clicking rales, which, as the dilatation progresses, become loud and bulging, with a marked variation from day to day. These daily changes in the adventitious sounds are an important diagnostic factor.

With localized disease, particularly in the lower lobes, we may get a decided dullness.

In acute cases the tubular breathing may be absent and crepitant rales heard over wide areas.

Naturally the most prominent symptom is the cough, which tends to become more and more paroxysmal in character, and may closely simulate whooping-cough.

The child is anæmic and emaciated. The breath may not be fetid, and expectoration may be absent, because it is swallowed; but during the act of vomiting, which frequently accompanies the cough, large quantities of pus may be expelled.

In spite of all this the child's general condition may remain good out of all proportion to the physical signs. Even with the disease extending the child will often take food well and gain in weight.

Fever is not present, except as a symptom of an inter-current pneumonia, which is usually followed by an extension of the disease.

Towards the close, if the case runs to a fatal ending, cyanosis becomes marked, due to imperfect aëration of the blood, and the temperature is sub-normal.

In chronic cases clubbing of the fingers and even of the nose may be observed.

The diagnosis is made from bronchitis by the gradual supervention upon the ordinary signs of that disease of distinct cavernous signs, with large bubbling rales, which vary greatly from day to day.

From tuberculosis, by the improvement in the general condition, while the abnormal physical signs are still extending. Also by the continued normal temperature in bronchiectasis.

Especially with the disease in the base, with percussion dullness, it may be difficult to distinguish between it and a localized empyema. Here the history of the case will usually help us, or, if still in doubt, the introduction of a large aspirating needle will clear things up.

The prognosis must be based upon a consideration of all the features in the case. If based upon the physical signs alone, the out-look would appear too gloomy; if upon the general symptoms alone, too hopeful.

The comparative chronicity of the disease and the fact that in a child tissue-building is going rapidly on give us hope that if we can prevent further lung complications a comparative, or in cases of moderate severity, an actual cure may result. But even if the condition remains permanent it is not necessarily progressive, providing the patient is placed under the most favorable conditions.

A case of my own, with a moderately severe bronchiectasis, involving the left apex, recovered completely. That was in a boy about seven years old, and the favorable location was an important factor.

The chief indications in treatment are to maintain the patient's general strength by proper food and exercise, and to shield him as much as possible from anything likely to produce a fresh catarrh.

The remedy which has given me the best results, both in adults and children, is *kali bich. 2x*. A severe case in a man, where the fetor was frightful and hemorrhages severe, made apparently a complete recovery under this remedy alone.

I say "apparently" complete because I have not had an opportunity for over three years of examining his lungs. But he tells me he has no cough or any other symptoms, and

he works regularly at his business of locomotive engineer, winter and summer.

My other favorite remedies are stannum iodide and arsenicum iodide.

I have had no experience with the creosote vapor baths in children, as I have not seen a child with this disease old enough to try them on since I have been using this method of treatment. In adults I have had good results with them, and can see no objection to their use in children of five or over.

Dr. Goodno says that, considering the pathological condition, there is no place in homeopathy for the treatment of bronchiectasis per se.

This is undoubtedly true, but in many cases homeopathy can cure the causative condition, and the dilated tubes may recover sufficient muscular tone to contract; or, if there is too much fibrosis present to allow this, the condition may be kept from increasing.



TWO UNIQUE CASES: ONE, ECTOPIC GESTATION, REMOVAL OF LEFT OVARY AND TUBE; REMOVAL OF RIGHT TESTICLE IN HUSBAND, AND SUBSEQUENT BIRTH OF BOY BABY.—THE OTHER, INTRA-ABDOMINAL HEMORRHAGE FROM RUPTURE OF OVARIAN ARTERY.

BY W. A. FORSTER, M. D.

Case I.—Mrs. J., age thirty-seven, married fifteen years. Two years ago consulted me for pain in left ovarian region. Diagnosed ectopic gestation. Operated and found a two-months' fetus in left tube. Removed the left tube and ovary with gestation sac.

Her husband, about this time, complained of a small, but at times painful, tumor of right testicle; and sometime thereafter I removed his right testicle and cord, which, under microscopic examination, proved to be sarcomatus.

In July of this present year Mrs. J. gave birth to a boy baby. This is rather an interesting case from a standpoint of determination of sex. The question arises: Does the sex

reside in either one or the other testicle; or does the ovary stamp it; or, according to Schenk, is it determined in utero?

Case II.—Mrs. H. sent for me hastily about noon time, complaining of severe pain in left ovarian region. Prescribed the indicated remedy and had them apply hot fomentation; was sent for again in about two hours, as the pain was worse. Gave 1-4 gr. morph. hypodermically, with but very little relief. Called again in two hours as pain was more severe. Gave another hypodermic 1-4 gr. morph.

By this time abdomen was somewhat distended and fluctuation could be detected in lower part of the abdomen. The pulse was becoming weak and the pains were labor-like in nature.

The woman said that she had missed her last menstrual period, and that it was time to menstruate again, and as she feared she was pregnant, and being unwilling to have a baby, she had taken some emmenagogue pills.

As I could discover no sign of miscarriage, and as general collapse seemed imminent, I diagnosed internal hemorrhage, probably due to rupture of ectopic gestation sac; consequently I hustled her off to the hospital. By this time the abdomen was well distended and the pulse much weaker.

Upon opening the abdomen blood of a dark color gushed forth, and I proceeded to hunt for the ruptured gestation sac. To my surprise I found no ruptured gestation sac, no ectopic gestation at all, but a pregnant uterus, probably two months. Both tubes and ovaries were normal, and no evidence of any rent in tubes, ovaries, or uterus, from which the blood could come. Still the blood kept welling up.

After a careful search I found that the blood came from the ovarian artery, at the very outer end of the broad ligament, where the artery enters the ligament. I immediately ligated it, mopped out the abdomen, closed the wound, and the patient made an uneventful recovery, and did not miscarry.



THE PATHOLOGY OF THE PUERPERIUM.

BY C. B. KINYON, M. D.

(*Concluded from November, 1900.*)

We are now ready to undertake the proper conduct of normal labor, of which it is not my purpose to speak at this time.

Before giving the treatment of a pathological puerperium I wish to make myself clear upon one point, namely, the source of this infection. In times past the atmosphere has been held responsible as containing the germ which causes this infection. The body of the puerperium has by different authorities been held responsible for harboring these germs. But the real origin of this infection is that in some manner it has been brought to the patient from without, and in a large majority of the cases it comes through the physician or the nurse. I am well aware that this is not very consoling to the attending physician, but it is, nevertheless, the truth, and such being the fact, it behooves us to hold ourselves, the nurse, and all connected with the case strictly accountable for everything they do and give them to understand if trouble follows that somebody is responsible either through ignorance or carelessness, and that you will make it your business to ascertain where the responsibility lies. By so doing you will bring about an absolute protection to the patient and to your reputation as well.

What I have just said may seem to be rather sweeping in character, therefore I am willing to put the same idea in other words as follows: Puerperal septicæmia is never endogenous, but is always exogenous, that is, comes from without. This being true, absolute asepsis is essential in the treatment of all cases of labor. Without taking up your time with details let me in a few words give you an outline of how these cases should be treated. The external genitals should be clipped and not shaved, as in shaving the skin is very likely to be irritated or abraded. They are then to be thoroughly scrubbed with etherial or with green soap. If the surroundings of the patient and her condition is such as to leave any doubt in our mind regarding the possibility of germs being already present in the vagina, it is the part of prudence to give one thorough bichloride douche just at the onset of labor. Allow me just a word at this point regarding the doctrine of auto-infection as the cause of puerperal fever, which was so universally recognized for several years. At present this theory is not tenable because it has been proven beyond all peradventure that spontaneous generation of disease is not

possible, then again, the causative agent of puerperal septi-cæmia has been found repeatedly in cases of disease, but has never been found in a healthy body. It will perhaps be well for me to speak of what seems an apparent exception to the above facts. We sometimes find cases of puerperal fever in which there is no external cause to be found. In these cases, with a careful examination, we will find the cause comes from within, in the form of an inflammatory deposit or an abscess in the pelvis. But it will be found upon investigation that this local disease, be it abscess or inflammation, was caused by the entrance of germs into the body previous to confinement. We thus see that these cases are really not an exception, but the actual condition had been overlooked by the attending physician.

It will perhaps be well for me to go a little more into detail regarding the asepsis and antisepsis of the physician, the nurse, and everything about the patient. By doing it at this time I will not need to speak of it in my lecture upon obstetric operations. At the outset I wish to call your attention to one great principle of asepsis and antisepsis which can be applied in any and every household, namely, heat either dry or moist. Everything around the patient must be absolutely clean, and in order to insure surgical cleanliness the clothing of the patient, the covering of the bed, the hands of the physician and the nurse, in fact, everything about the patient or which is liable to come in contact with the patient, must be made and kept surgically clean. With due care and a little experience along this line, this matter is not so difficult as it would seem at first thought. See to it that before making an examination your hands and fingers, especially the nails, are smoothly trimmed and absolutely cleaned each and every time. Always make it a point to see that the bowels of the patient are thoroughly emptied, as well as the bladder. For emptying the bladder use either a glass catheter or a new soft rubber catheter, made surgically clean.

After the expulsion of the placenta examine the placenta and membranes carefully to be sure that no portion remains within the cavity. Also with the aseptic finger see that no clots remain within the uterine cavity. At this time give a

thorough douching of creolin, three per cent. The bichloride at this time is not safe as there is such an extensive injured surface of the parturient canal, and the action of bichloride upon this surface is not favorable to the process of healing. Personally I always use either arnica or calendula as a douche immediately after the use of the creolin. I am governed in the choice of these remedies by the following conditions: Where the parts are bruised use arnica, if they are cut or both cut and bruised use calendula. Assuming that up to this point the process of labor has been antiseptically or aseptically conducted, let us bear in mind that there is still remaining a large raw surface, which offers a field for the growth of the germs if they do gain entrance. This surface is at the point of placental insertion. Bearing this in mind, we will see the necessity of great care being exercised that no germ finds entrance into the vagina. This can only be insured by the application, in a proper manner, of the obstetric pad. Just one point I wish to emphasize right here. Instruct the nurse before she removes this pad that she must wash the part all around this very thoroughly with etherial soap and bichloride. Instruct her, while doing this, to press the pad firmly against the vulva. By so doing no germs can possibly find entrance into the canal. With care in this respect it is not necessary to give a douche daily. If at any time the lochia has a bad odor then is the time for us to use thoroughly our antiseptic douches as often as need be to keep the parts sweet and clean. If, in spite of these precautions, there develop symptoms of infection it is then our bounden duty to investigate and locate the point of infection, always beginning our examination with the vulva, then the mucous lining of the vagina on every side, and if no cause is found here we must examine the cervix, and if we still find no cause the uterus itself must be examined. No matter where the cause, it must be located and removed.

Let me briefly outline some of the warning notes which are present in the first stages of infection. In view of the fact that the condition of the patient is an important factor, and in view of the further fact that any one of forty or more of the different varieties of germs which may find entrance will cause

the disease, the symptoms are by no manner of means uniform. Another very important element for us to consider is the stage of the puerperium, or lying-in period, at which these germs find a suitable soil upon which to grow. Let us ever bear in mind that they may find entrance at any time from the close of labor to the close of the lying-in period, which is from four to eight weeks, or perhaps longer in complicated cases.

As a rule, the first symptoms manifest themselves from thirty-six to forty-eight hours after delivery. Chill is by no manner of means a marked symptom, in fact is not always present, or if it is present may be so slight that the patient may not call your attention to it. Then, again, from any exciting or emotional cause the woman may have a chill, in which case it has no great significance, so let us not depend too much upon the character or presence of the chill. Of course, a chill would naturally awaken anxiety and cause us to watch more closely for the other symptoms. One of the first very significant symptoms which we will note is the rapid pulse. A rapid pulse which is not due to emotional causes always means that danger is impending in one of two forms, either hemorrhage or infection. The character and rapidity of the pulse signifies much more in this class of cases than the temperature. We may have a high temperature without serious consequences. We may have a low temperature and yet the patient be very sick indeed. But in either of these conditions let us always bear in mind the fact that a rapid pulse means danger and in dangerous cases is always present. Under no consideration whatever should you leave the patient until you have impressed upon the minds of the nurse or of the attendants the gravity of the situation and given them positive indications as to what they may expect if the case goes on to one of general infection. By watching for these indications they will be able to either know what to do themselves or send for you. Above all things do not manifest anxiety or allow others to manifest it in the presence of the patient. For of all diseases with which we have to deal none leave the patient with keener and more alert mental faculties and in none is she so susceptible to untoward influences which may surround her. This is but natural. For the

mother is profoundly impressed with the fact that it is not only her life but the life of her child that is at stake. I trust you will pardon me if I spend a little time in emphasizing what seems to me a very important point, which is almost sure to arise at this stage of the case, and one which is not emphasized enough by our writers and teachers. I refer especially to what is often spoken of as milk fever or a rise of temperature on the third day. As I have already told you, it is now acknowledged by all authorities that there is no such thing, strictly speaking, as milk fever. Without going into detail as to all of the causes for this rise in temperature at this time, I will only mention two causes, one of which I wish to emphasize. I can make my meaning clear in fewer words by giving you a picture of what I have seen scores, yes, hundreds of times. How often have I found my patient during the second, third, or fourth day, with a temperature varying from 101 to 103 or 104, restless, thirsty, very susceptible to noise, with perhaps some distention of the abdomen, general but not marked soreness, with a pulse from 90 to 120. Upon inquiry I would generally learn that there had been no movement of the bowels since delivery. In these cases it is my invariable rule to bring about a free evacuation of the bowels in the quickest and safest manner possible. If the temperature is very high and other symptoms very marked, indicating that prompt and vigorous treatment is necessary, I do not hesitate to give *merc. dulcis*. As a rule it is well tolerated by the stomach. I have repeatedly given from three to six grains in as many hours and invariably follow this with a good vigorous castor-oil purge. I am sure that I am safe in saying that in ninety-five per cent. or more of these cases the temperature drops from 2° to 4° in six to twelve hours. And why should it not? We here have the following conditions present.

As I said in the first part of this lecture, there is a rapid destructive process going on by way of involution of the uterus and all the pelvic organs and tissues. This waste product is largely excreted or carried off through the kidneys, liver, and intestinal canal. If from any cause the intestinal canal is not emptied, its contents, by their very presence, asso-

ciated with the myriads of germs that are always present in every individual, no matter how healthy, not only may, but do excite irritation. This irritation tends to soften the mucous lining of the intestinal canal. In this softened condition the colon bacilli or other germs penetrate this mucous lining, are absorbed through the muscular walls, and in due time penetrate the serous covering of the intestines and find their way into the peritoneal cavity. In these cases under consideration, because of the abundant blood supply to all the pelvic organs and tissues consequent upon nine months of excessive activity, these germs, of which I have just spoken as being present in the intestinal canal, pass very readily from the rectum and sigmoid into the uterus or its appendages. By getting rid of these germs by vigorous cathartic, we clear the field so that we are ready to give the homeopathic remedy with assurance of success, while without this clearing up we may succeed, and we may not. At best, we cannot succeed as quickly or as satisfactorily. As the indications are so well outlined in the books, I will not need to go into detail regarding the therapeutic indications in this disease, but will briefly call to mind the remedies which are indicated in a vast majority of cases. I give *arnica xxx*, a dose every hour for the first twelve hours after labor, while the patient is awake. For the next twelve hours and the second twenty-four hours I give *aconite xx*, dose every hour. For the third and fourth twenty-four hours I give *belladonna xxx*, dose every two hours. If septic conditions develop *arse. xxx* and *lachesis 6 +* in the later stages are my main reliance.

Before proceeding farther with the details of the more serious forms of puerperal septicæmia I wish to call your attention to what is spoken of in the books as *sapræmia*. This is due in every case to the decomposition of retained placenta, membranes, or blood clots. The germs or saprophytes which cause this decomposition generate a poison, a ptomaine or so-called toxine, which being absorbed causes the symptoms which we find in these cases. In *sapræmia* there is a marked odor to the lochia, as there always is in the presence of decomposition. This odor sometimes makes the physician very anxious, but a thorough examination of the case will soon

show the true state of affairs. With the retained placenta, membrane, or blood clots, the os is always open. After thorough antiseptic measures applied to the patient and with the finger surgically clean, the physician can easily diagnose his case. With one hand upon the abdomen pressing down upon the fundus of the uterus and holding it there, he can readily pass one or more fingers of the other hand up into the uterine cavity, when the foreign substance, whatever it may be, can be definitely located and removed. This removal must be thorough. If any doubt remains upon this point, the physician is in duty bound to use the curette or swab of iodoform gauze and thoroughly clean out the uterine cavity. Be very sure that what you are removing from the uterine cavity is some retained foreign body. For, if you are dealing with an exfoliative endometritis, the curetting will frequently do more harm than good. One important fact will help us to differentiate between exfoliative endometritis and *sapræmia* from retained placenta. This form of endometritis does not occur until some days after delivery, while *sapræmia* may occur within a few hours or two or three days after delivery, if infected. Not always thus early, however, for if the retained substances are not infected they do not decompose. I have repeatedly seen portions of the placenta retained in the uterine cavity for days and weeks and yet not be at all decomposed—in fact, no odor being present in the lochia. Instead of decomposing it may, if not infected, become the starting point of a new growth within the uterine cavity.

What I wish to impress upon your mind is the fact that the clinical symptoms of puerperal septicæmia vary with the kind of micro-organisms which have gained entrance into the system, with the nature of the soil where they have lodged and whether rich in lymphatic supply or not; and finally, that the sum total of the clinical symptoms must depend very largely upon the resisting power of the person in whose body they have obtained a foothold. A patient weakened by previous disease will not resist the onset of these infectious elements as successfully as one who has reached the period of labor with her vital powers at par. These facts explain the varying degrees of virulence which septicæmia offers in dif-

ferent women infected at the same time by the same germs and at a similar site. Of late years a very large percentage of our ablest writers and teachers have claimed that the leucocytes of the body play an important part in resisting the encroachments of disease. (This is called the process of phagocytosis.) It matters not whether we believe all that this class of writers tell us, we certainly can take this much for granted: these leucocytes do offer a barrier to the entrance of bacteria into the system and oppose, to a greater or less extent, their progress when once they have gained a foothold.

By way of emphasis, let me repeat that the lesions of this disease vary greatly, and it spreads with greater or less rapidity according to the lymphatic supply of the part first affected. A lacerated perineum, lesions of the vaginal wall, of the cervix, or the wounded endometrium at the placental site, are the common points for infection.

Let us go a little into detail regarding the diagnosis and treatment of the different localities which are liable to become infected. Infection in a perineal laceration does not affect the general system as rapidly as though the infection were in the cervix or endometrium, because of the limited lymphatic supply. Even though upon this perineal point sloughing were to occur and the infection were to assume a diphtheritic character, timely and vigorous treatment would cure the patient before the system became infected, while if it were to assume this form in the cervix or endometrium we would almost certainly have general systemic infection and at best a very serious case to deal with, and a large percentage of these cases rapidly progress to a fatal termination if not checked at the proper time. There is less likelihood of producing confusion in your minds if I speak of puerperal septicæmia as an entity, rather than attempt to draw too sharp lines of differentiation of one infected organ or tissue from another. It is very rarely, indeed, that one organ can be affected or even one part of an organ without the rest of this organ and adjacent organs becoming involved. As soon as the symptoms, which I have already outlined, manifest themselves, a very thorough examination is called for at once. If we find evidence of sloughing or infection of the perineal

floor, this infected tissue must be cleansed and the sloughing tissue must be removed. It may be necessary in these cases, where the deeper structures of the perineum are infected and stitches were taken immediately following delivery, to remove these stitches because the cleansing and the removal of the sloughing tissues must be complete and thorough. If we find evidence of infection or sloughing at the cervix this must be treated in the same thorough manner. In passing allow me to make one suggestion. It is really astonishing to note what a strong and disagreeable odor a small bit of sloughing tissue of the perineum or vagina will cause. If nothing wrong is found in the vagina or cervix, we then know, by the process of exclusion, that the trouble must be within the uterine cavity. It is then our duty to explore this cavity and to treat this as thoroughly and as vigorously as though it were in the cervix or perineum. No matter where these germs find entrance, the constitutional disturbance will vary according to the nature of the local lesion and the lymphatic supply. As a rule the secretion of milk is diminished or arrested and the lochial discharge is diminished or may be arrested. Lochia will become fetid. This fetor arises, as a rule, from the sloughing tissue located at some portion of the parturient canal. Within the vagina or cervix with proper treatment the disease can be arrested promptly. If it is not treated in time or properly, it always spreads to the uterine cavity. When it reaches this cavity, the disease may be checked before it passes beyond the endometrium; provided, of course, it is properly treated at the right time. If this is not done the disease spreads to the uterine walls, when we have metritis superadded. We now come to a very critical point in this disease, and I shall try to make myself understood, for I feel very confident that I am about to give you the treatment which is followed by the most successful practitioners of all schools of medicine in all countries. When endometritis and metritis are both present in the same patient, we must not curette the uterine cavity. By so doing we simply open up an enormous raw surface which not only may but will absorb the poisons which are already in the uterine wall. Let me call your attention to the fact that the whole uterine cavity

has been likened to one large lymph gland, and if the integrity of this surface is destroyed by the curette or by any other means the process of absorption is immeasurably increased. Indeed, with the curetting of this surface the absorption through this lymphatic surface and its numerous ducts is always very rapid. This being true, the parametrium, the uterine appendages, and a large part of the pelvic contents become infected and we have a case of general infection developed very quickly, often within a few hours. The infection may become general before we are hardly aware of the presence of the disease at all. Believing, as I do, that what I have just told you is true, you will see at once that I am not an advocate of the complete removal of the uterus in these cases. In other words, do not believe that hysterectomy will save the patient. Statistics, it is true, give us a few cases, scattered here and there throughout the world, that have recovered after hysterectomy, but I firmly believe that in these cases a less radical procedure would have cured the woman. While, on the other hand, ninety-seven per cent. of the cases of hysterectomy under these conditions have proved fatal. And I am sure that of these ninety-seven per cent. a large minority, if not a majority, could have been saved by adopting measures which I will now proceed to outline. Instead of total ablation of the uterus I am a firm believer in the continuous irrigation of the uterine cavity either with sterilized water or, if there is much odor, a 1 or 2 per cent. solution of creolin. This continuous irrigation is easily applied as follows: See that the os is thoroughly dilated, introduce a good intra-uterine douche or double-current catheter. By placing a Kelly pad under the patient's hips and placing the bucket which contains the solution from eighteen inches to two feet above the patient this continuous irrigation can be kept up for as long a time as desired. My rule as to how long this is necessary in these cases is this: Have this water from 100° to 110° and continue to irrigate until the temperature falls, whether this be hours or days. I now recall a case where I was called in late in the disease with a temperature of 105 in which this irrigation did not diminish the fever to any appreciable extent for thirty-six hours and was not brought down

to what I considered a safe point until it had been kept irrigated for eleven days and nights. The temperature then was 99°, and by continuing the irrigation two hours out of the twenty-four for three weeks longer the patient ultimately made a perfect recovery. Of course before applying this irrigation clean out the cavity thoroughly, but with great care. Be sure that the os is very thoroughly dilated, then clean out the cavity with the full strength peroxide of hydrogen, or, if you think best, dilute with one-half water. Immediately follow this with the flushing of calendula one part to ten; then swab out the cavity with what I speak of as iodine compound.

R. Glycerin.....	75%
Iodine.....	20%
Carb. acid (sat. sol.).....	5%

Follow this with a packing of strips of 5 per cent. iodoform gauze; 10 per cent. gauze is too strong in most cases, as the patient is liable to be poisoned with iodoform. I place this gauze for two reasons, it insures good drainage and excites contractions of the uterus by its efforts to expel the gauze. This expulsive effort of the uterus tends to hasten involution of the organ and causes an undue flow to speak of the secretions. In order to impress more fully upon your mind the need of great conservatism regarding hysterectomy in these cases, I wish to mention a case which came under my observation a few months ago. After the uterus was removed it was found to contain a large mass of decomposing placenta. You will naturally conclude that the operator was greatly chagrined, although it was really not his fault, as the attending physician and the family had fully determined upon the operation before the surgeon arrived. The patient died on the third day from peritonitis. The operation was very radical and complete, but the infection had already permeated the whole pelvic cavity, so that it was not possible to remove it with the knife. The shock of the operation and the resulting inflammation certainly hastened the patient's death. In this case a thorough curetting with continuous irrigation and the building up of the patient's strength would surely have given the woman a fighting chance for her life. This naturally leads us to a brief consideration of the difference between local and

general peritonitis. In the local form (pelvic peritonitis) nature forms a protective barrier around the infected area, while in general peritonitis the absorption of the infectious material is so rapid that the patient's vital force is overpowered and the infection becomes general before nature has time to build up this protective barrier. With great care on the part of the attending physician it will be easy to differentiate between local and general peritonitis. This differentiation is absolutely essential to the proper and successful treatment. It is also necessary that this diagnosis be made early in the course of the disease. Hence, the need of extreme watchfulness upon the earliest exhibition of any abnormal manifestation. The temperature, and especially the pulse, will be valuable aids in diagnosing, but they are not sufficient; you must make a careful examination of the entire parturient canal, as well as the entire pelvis. You will then be able to locate definitely the seat of the trouble. An important point for us to consider, after having located the seat of the trouble, is whether the infection has reached the lymphatic system or not. If it has, our treatment, both surgical and by internal medication, must be very prompt and vigorous. If it has not reached the lymphatic system, we are justified in giving nature a little time to form what I have spoken of as a protective barrier. After this barrier has been formed it will then be necessary for us to watch very closely for the formation of an abscess. Upon the first indication of pus formation it is our bounden duty to find this pus and evacuate it. If the attending physician is not able to locate and evacuate this pus he should call in counsel. I cannot emphasize this point too much. How frequently do we hear physicians say that nature will take care of this pus either by absorption or by evacuating it through the proper channel without assistance. This is one of the most dangerous fallacies existing to-day in the minds of the medical profession. We must bear in mind that our patient is already depressed from a long-continued illness, so that throwing off this poison by absorption is almost if not quite impossible. On the other hand, if this pus is not evacuated promptly it simply adds to the patient's depression, so that in a very short time her con-

dition will be such that even the opening of an abscess would be dangerous, while if done promptly and thoroughly the recovery will be marvelous indeed. I have repeatedly seen the temperature drop from 105° to 99° in twelve hours, pulse from 140 to 90, and in one week the patient sitting up in bed and out of danger. Indeed, such is the usual course in these cases. Such being true, it is certainly culpable on the part of the medical profession to treat these cases by the so-called expectant method. As to how these abscesses should be evacuated and treated, I need not now detail, as the operator should always be governed by sound surgical principles here as elsewhere. One fact is of importance, however. Find the pus via the vagina, if possible, as nature has built a wall at the top of the pelvis. It will, perhaps, be well for me to give you a few words as to the treatment of these cases other than surgical. In the earlier stages aconite and belladonna are the principal remedies. In the later stages salicylate of soda is one of our best remedies. By giving this, two grains every two hours, we will bring about a free action of the bowels and thus help to eliminate the poisons much more rapidly. If the temperature is 101° or less, local heat applied externally is very beneficial. If accompanied with pain, I have found the most satisfactory results from the application of poppy fomentations. It is truly wonderful to note what a relief this is to the patient, subduing her nervousness and enabling her to sleep, thereby conserving her vitality. If the temperature is above 101° we sometimes find the application of ice more agreeable and effective. Little need be said regarding the treatment of those cases where the infection becomes general throughout the peritoneal cavity. It is still an open question, but with a growing tendency, or belief in the efficacy of opening the abdominal cavity and draining by means of iodoform gauze. This seems to me a rational method of treatment and if properly done certainly can do no harm. But in spite of all treatment, at least 98 per cent. of these cases die.

I have but little more to add to the treatment of puerperal infection. When it assumes a chronic form, as it often does if not properly treated in the beginning, we may have devel-

oped a form of thrombosis leading to so-called "milk-leg," or even multiple thrombosis or embolism leading to so-called pyæmia. As these conditions are treated or rather should be treated the same as though occurring in any other form of disease, I will not give the treatment. For fear that I did not make myself quite clear upon one point, I wish again to repeat the fact that we may have puerperal infection as late as the third or fifth week, or at any time before all of the injured surfaces have been repaired. As a rule, the later the infection and the stronger the patient the lighter the attack.

I wish now to speak somewhat in detail regarding the repair of the injuries which are so apt to accompany childbirth. In a general way, I might put it thus: No matter where or how extensive the injury may be, our treatment must be such as to bring the parts in apposition, and when healing takes place that they will be as near the normal condition as possible. Of late much has been written upon the immediate repair of lacerations of the cervix.

Outside of hospitals this immediate repair of cervical laceration is not feasible as a rule. Neither is it necessary. For if the vagina and cervix are kept aseptic these lacerations almost invariably heal. Then, again, it requires one or more assistants to repair these lacerations. Still again, it is hardly possible, or rather practicable, for the accoucheur to know of these lacerations without subjecting the woman to such an examination as to cause more or less worry and depression. There is one form of laceration of the cervix which will not come under this head, that is in those cases where the laceration is so deep as to involve one or more of the circular arteries. In these cases the hemorrhage will be such that the laceration must be repaired. This will perhaps be the best time for me to give you in a few words the differentiation between this form of hemorrhage and the hemorrhage from the uterine cavity. Upon inspection bright red blood will be seen flowing freely from the cervix in case the circular arteries are torn, while in case the hemorrhage comes from the uterine cavity the blood is, as a rule, clotted, the uterus itself large and flabby, which condition can readily be distinguished by abdominal palpation. This method of

examination, coupled with intra-uterine examination by the finger of the other hand, will soon clear up all doubt as to the source of the hemorrhage. The treatment in these two forms of hemorrhage is very different. In laceration of the cervix one or more stitches of silkworm or catgut immediately arrests the hemorrhage, while in the intra-uterine hemorrhage we must adopt measures to produce contraction of the uterus.

After the uterus has once been thoroughly emptied, but contraction is very feeble or altogether wanting, it is good practice to give ergot, one-half to one dram at a dose, repeated every hour until contraction takes place. We often find cases in which more vigorous, or perhaps I might better say more prompt-acting, measures will be called for in order to arrest the hemorrhage. When this is true, I find nothing more effective, and withal more readily obtainable, than sterilized vinegar. Its method of application is very simple. I saturate a piece of gauze or surgically clean cloth eighteen inches square, having in its center a small piece of aseptic absorbent cotton. Fold this gauze over the cotton in such a way that it can be pushed clear up to the fundus after being saturated with the vinegar, and a portion of the gauze left in the os to secure drainage and facilitate removal. I have yet to see this method fail. In lieu of vinegar some obstetricians peel a small lemon, wrap it in gauze, and pass it up into the uterine cavity. This is effective, but is somewhat painful to remove. As showing the power of acetic acid to produce coagulation you have but to examine the piece of cotton and the gauze which has been saturated with the vinegar when it is removed from the uterine cavity. From the side where the placenta was attached you will frequently see clots of blood adhering which correspond in size and shape to the large uterine sinuses through which the mother's blood found its way to the placenta. I have really given you in a few words the successful treatment of post-partum hemorrhage.

Another point which is not sufficiently emphasized in any of the books, to my knowledge, is the seeming necessity, I might almost say absolute necessity, of repairing all lacerations of the walls of the vagina. I do not now have in mind lacerations of the perineum. We frequently have lacerations

on one or both sides of the vagina, these frequently extending up into the parametrium. This, as you will remember, is the location of some of the most important glands and ducts of the lymphatic system. If these lacerations are not repaired and germs of any sort, that is pathogenic germs, find entrance into the vagina, they are readily absorbed into the lymphatic system through these rents already spoken of, and very rapidly excite general infection. In order to prevent such a complication it is our duty to see to it that all rents of the vagina, and especially at these points already spoken of, are repaired. If we know that we have some thoroughly antiseptic chromicized catgut, we may use this in repairing these lacerations. If we are not sure that it is sterile, we had better use silk or silkworm gut. It is best in these cases to use a full curved needle, Hagedorn is preferable, and take as many stitches as are needed to thoroughly coapt the parts. It now remains for us to speak briefly of repair of the lacerated perineum. The great secret of success here consists in first thoroughly examining and noting definitely the exact extent of the injury. If we find the sphincter ani torn, this must first be repaired, which is best done by the use of silk, tied in such a way that the ends are left in the rectum. We next begin well up in the vagina, and very frequently indeed the tear in the perineum will extend up to or be a continuation of the rents in the vagina which we have already repaired. We must apply as many stitches in the vaginal surface of the perineum and in such manner as necessary to bring the parts into their normal relationship. Before these are tied the sutures which are to support the perineal body are passed, including plenty of tissue on each side, and interlocking with these vaginal sutures in such a way that when all sutures are tied the perineum will form a solid body with two or more rows of sutures. The deep stitches in the perineum have always united better in my practice where I have used large braided silk boiled in the following formula for ten minutes and soaked in it at fluid point for two hours:

White wax.....	84%
Salicylic acid....	10%
Carb. acid.....	6%

Current Comment.

Richard Douglass, M. D.:

If a *face presentation* is detected at the outset of labor we should remember that the escape of waters at this stage is most disastrous. Sufficient vaginal examination for confirmatory diagnosis alone should be made. We should rely upon abdominal palpation largely. While the os is only slightly dilated and the membranes unruptured, every effort should be made to permit Nature to spontaneously correct this faulty position and re-establish the vertex by flexion, and this she often does. We can contribute greatly to this end, and by simple measures. Oftentimes placing the patient upon her side, that to which the child's abdomen is directed, or to which the face looks, changes the relation of the spinal column and the condyles of the occiput. This may re-establish flexion. If this should fail, place the patient in knee and chest position and with the hand push up the head. If the patient should maintain this position through several pains it is probable that adaptation at the brim with better presentation would follow. The practical physician knows how difficult it is to induce a woman in labor to assume this position. A much less embarrassing and just as effective posture is Trendelenburg's.

♦ ♦

Malcolm McLean, M. D.:

I have accomplished safe delivery in the case of *face presentations* by a method which has been suggested, but results not reported, by other obstetricians. With the use of Schatz' method, that of converting a face presentation into one of the vertex, correction must be early while the head is above, or at the superior strait, and the waters of the sac undischarged. It is difficult in this procedure to make a diagnosis of face presentation early enough, and it is not easy to so secure the corrected position that relapse into the extended pose may not occur. I think that in the majority of cases the faulty position of the head is itself produced as the head attempts

to settle into the pelvic canal. The general teaching that the mento-posterior position of the face will be self-corrected as soon as the chin reaches the floor of the pelvis, I consider delusive. This has occurred in but one instance in my experience.

I call my method of dealing with this condition "version by vertex within the pelvis." The patient is put under full chloroform anæsthesia; the surgeon's hand is passed carefully into the vulva while the outside hand seizes the body of the child. If there is no uterine contraction the chest is pushed obliquely from behind forward, as much as possible away from the point toward which the chin is pointing, in the direction of the occiput. The hand within the vagina is at the same time pushed up beside the head in one or other of the oblique diameters of the pelvis so that the fingers can reach the suboccipital portion of the head, while the thumb is used to steady the brow, and with a slight lifting motion imparted to the whole head it is caused to rotate on its axis, the chin passing upward above the sacro-ischiatic notch, as the occiput is drawn down below the pubis. Flexion may be hastened by pressing down the occiput with the outside hand as soon as the face is dislodged from its wrong position.

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John J. Mulheron, M. D.:

A few years ago a patient of mine had a very rapid labor. It was a breech presentation, and before I was summoned the body of the child had been expelled, the head remaining in the passage. A physician near by was hastily called in and promptly removed it, but declared it dead and laid it away in another room. The house being distant from my office it was nearly an hour before I reached the patient's bedside.

The afterbirth had in the meanwhile been removed and the woman's toilet completed. The husband having asked me to see the child I discovered at the first glance that it was still livid, and proposed efforts to resuscitate it; there was the faintest perceptible impulse over the region of the heart, and this fact in connection with the color of the surface encouraged me to make the attempt. After fully three-fourths of

an hour of continued effort, in which various methods of artificial respiration were employed, the household was enraptured by the infant cry.

Other more remarkable *cases of resuscitation* than this are of record, and they teach a forcible lesson, that no child that does not present positive evidence of decomposition should be pronounced dead until after persistent, faithful, and prolonged efforts at resuscitation have been made.

The first thing to be done after the delivery of either a breathing or non-breathing child is to clean out the upper air passages. The little finger usually suffices for this purpose, and when the first cry has been uttered no further efforts in this direction will be necessary. Should, however, this cry fail to be emitted within a reasonable time, say two minutes, mouth-to-mouth insufflation should be practiced. This is done by laying a towel over the child's lips and blowing forcibly into its mouth. It is not expected that much, if any, air shall enter the lungs through such insufflation, but it is valuable as a means of expelling mucus from the nasal passages. Should abundant râles point to the presence of fluids in the larynx, trachea, and bronchi a small elastic catheter (No. 8) should be passed through the glottis. This procedure is quite easy of accomplishment; the index finger being placed behind the epiglottis serves as a guide to the passage of the catheter besides offering a ready exit for the escape of the mucus. The stimulus imparted by the presence of the catheter often produces spontaneous respiration. After the mucus has been thus removed the attempt should be made to stimulate reflex action by flagellation, and by the immersion of the child in hot and cold water. The cord should not be ligated as long as it continues to pulsate, in order that as much placental blood as possible may pass into the child. The child failing to respond to the above stimuli we must have recourse to one or several of the methods of artificial respiration.



George L. Brodhead, M. D.:

If after the birth of child the breasts are over-distended pressure may be used; but where the milk supply is only moderate pressure should be avoided for fear of decreasing

the amount of milk. *The breasts* in all women *should be supported* in some way to prevent the caking which is often the result of a pendulous position. If there is pain and tenderness, the breasts should be carefully massaged by the nurse with clean hands about once every four hours, or less often as occasion may demand. The object of such massage, where caking exists, is not to remove a large quantity of milk from the breast, but to distribute the milk equally throughout the gland. Where the pressure is even throughout there will be little pain, and the supply will soon be regulated to a large extent by the demands made by the child. Fluids should be taken in such cases in limited amounts in order to prevent further distention. Great care should also be taken in such cases to see that the infant nurses well, for when nursing is properly established, trouble will usually come to an end. Again, much good can be accomplished in cases of over-distended breasts by the use of repeated doses of Rochelle salts, a tablespoonful in a glass of vichy every hour until the bowels are freely evacuated. The breast pump creates to my mind an artificial demand, and with its use a longer time is required to establish a proper balance between supply and demand. Where, on the other hand, milk is desired for the purpose of feeding a premature infant, or one for any reason too weak to nurse, a breast pump carefully cleaned and properly used is of the greatest possible advantage. Where the milk supply is deficient, massage should be used three or four times each day—large quantities of rich milk, eggs, butter, and cream taken and some form of malt extract administered three times a day.

A moderate rise of temperature may accompany distention and pain in the breasts, but as a rule the pulse does not become accelerated to a degree corresponding to the rise of temperature. Where the pulse and temperature suddenly rise to a marked degree, infection is, as a rule, to be strongly suspected, and in those cases, on careful palpation, a painful indurated area may be found in the breast. Where every possible precaution is taken to keep the nipples and breasts absolutely clean, abscess of the breast is exceedingly rare. In a service of several thousand cases at the Sloane Maternity

Hospital, there were but few in which abscess was threatened and but three cases in which operation was performed for the relief of such a condition.

Even where infection has taken place and we have a painful indurated area in the breast with increased pulse rate, rise of temperature, and perhaps a chill, the inflammatory process can be checked and a cure brought about in many of the cases by prompt, energetic, careful treatment. In these cases I believe massage to be of the greatest value, for by that means the pus, which is at first located in the ducts themselves (the process not having extended into the connecting tissue surrounding them), can be slowly and carefully removed in part at least, and wiped away from the nipple as it appears there with a sterile wipe. Massage should be at first made lightly, then gradually with more pressure, the aim being to bring the pus from the gland to the nipple, there to be sponged away. The pain is oftentimes very great, but the patient generally prefers to have it done rather than run the risk of having an operation performed. Massage should be used once every four hours, and during the intervals an ice bag should be constantly applied to the painful area, the breast being held up in proper position with a breast binder. If pus is present the child should discontinue nursing; but if not, nursing should continue. I have repeatedly seen recovery follow this plan of treatment, in one case inflammation having occurred in both breasts. One point must be emphasized, and that is, treatment must be commenced immediately upon the appearance of suspicious symptoms and kept up continuously until all danger has passed.

♦ ♦

William B. Church, M. D.:

Probably all will agree that so long as the uterus is contracting regularly without spasmodic action, the head advancing slowly, and the parts relaxing, with a reasonable prospect of completion of labor within a few hours, *the application of forceps* is uncalled for and injudicious. We meet, however, many modifications of these conditions. In lingering labor, with the head above the brim of the pelvis, or resting on it, or perhaps engaged in it, no progress being made

and the patient becoming exhausted, we have here conditions which will raise urgent demands for relief. In such a situation we have to choose between external compression of the uterus, administration of ergot, and resort to forceps. This is a situation I submit with the simple statement that my own preference is a resort to forceps. The question as to whether prolonged labor in the first stage involves danger to mother and child is one on which there is still difference of opinion. Those most competent by extended experience to speak concede the danger, especially when the head fails to retreat after a pain passes off. Such failure to recede between pains indicates undue pressure on the maternal soft parts, and should be regarded as an indication for forceps, to obviate danger of sloughing.

Aside from the question of risk, there is also a division of sentiment as to whether there should ever be a resort to forceps merely to save the mother from suffering. On this point it might perhaps be well enough to let the mother decide. A question more difficult concerns the application of forceps in any case before the os is fully dilated. I would say, only when the condition of the mother calls for a speedy delivery. If the os is dilated delivery may be easily and quickly accomplished; if undilated and rigid it will constitute so serious an obstacle that we will only apply forceps as a *dernier ressort*.

A nice question is often presented, especially in primiparous women, when the expulsion is prevented by the tonic of the soft parts of the pelvic outlet. With every pain the child's head is crowded against these resisting parts, the perineum becoming greatly distended, but still forming an impassable barrier. When the pain ceases, the head retreats, all tension is relieved, the placental circulation is restored, and quiet prevails until the next pain comes on. So long as the rhythm and force of the uterine contractions are maintained, we may be content to leave the case to nature, but if the time comes when movement of the head grows less, or it remains stationary, the pains farther apart and less forcible, it is good practice to anticipate the impending deadlock by forceps delivery. It cannot be doubted that resort to craniotomy is much less frequent since the use of forceps has become more general.

There remains another class of cases, still more important than any already considered, where judicious use of the forceps is most important. Here also there is wide diversity of opinion and practice. Reference is had to posterior occipital positions, or transverse positions, in which there is failure to rotate. These cases are always lingering and involve an immense amount of suffering, even if the pelvic diameters are ample. The reasons why such conditions render labor tedious and difficult need not be detailed here, as you are all familiar with them. We are only concerned at present with the question of the applicability to them of forceps treatment; first, for the purpose of causing rotation of the occiput anteriorly, and then reapplying them, if necessary, for delivery. Strong condemnation of this use of forceps appears in some works on obstetrics, but they fail to convince me that it is justifiable or good practice to allow a woman to suffer agonies for many hours in a position which can be readily and safely relieved in five minutes.



Q. N. Love, M. D.:

Sterile women and unmarried women who have never borne children do not, as a rule, have *cancer of the uterus*; multiparous women, who have borne a large family of children, are the ones especially prone to cancer of the uterus. The only way this can be explained is upon the hypothesis that there is some connection between laceration of the cervix and cancer; that there is something about the lacerated uterine neck which invites the morbid process.

In conversation recently with some of the highest gynecological authorities in America—Murphy, Reed, Palmer, Dudley, Morris, McMurtry, Baldy, Price, and Henrotin—I elicited the uniform opinion that *every lacerated cervix should be promptly repaired* and, whether corrected or not, they should be watched carefully, examined from time to time and, immediately on appearance of suspicious indurations, radical surgical interference should be instituted. It goes without saying that a suspicious womb should be immediately removed. Authorities differ as to whether abdominal or vaginal hysterectomy is preferable, but, if the conditions are favorable, I prefer the latter.

Given a case of uterine epithelioma early discovered, promptly and radically operated upon, and the chances are largely in favor of a long and useful life without recurrence.

♦ ♦

R. P. Ranken Lyle, M. D.:

There are a few rules which, I think, if they were strictly observed, would materially lessen the prevalence of *puerperal sepsis*.

1. The thorough disinfection of the patient's external genitals, and the hands and forearms of the medical attendant, and the nurse, prior even to a vaginal examination. It is very easy to understand how, when a vaginal examination is made with fingers which have not been thoroughly washed and disinfected, material may be carried into the vagina which will be rubbed off the fingers and remain there. This material may in some instances be washed away by the liquor amnii, but in a certain proportion of cases it will remain there and cause decomposition of the lochia, or perhaps it may get into some of the fissures of the vaginal wall consequent on parturition, and either set up acute inflammation or perhaps cause acute sepsis itself.

2. The abolition of routine ante-partum and post-partum douching. The three principal solutions used for this purpose are corrosive sublimate, creolin, and carbolic acid. Corrosive sublimate solution has no advantages over creolin solution and has several decided disadvantages. If it is used for ante-partum douching, besides washing away Nature's antiseptic lubricant (the vaginal mucous secretion), owing to its astringent properties it hardens and corrugates the vaginal mucous membrane, predisposing to extensive fissuring of the vaginal wall and a large laceration of the perineum during parturition, thereby considerably increasing the danger of septic infection. When used post-partum it does not act as an antiseptic because the mercury unites with the albuminous constituents with which it comes in contact, forming an insoluble albuminate of mercury, which is inert. This remains adherent to the surface of the parturient canal, being absorbed into the system later, and causes severe diarrhea or

diarrhea with melæna (symptoms of corrosive sublimate poisoning). Besides, by hardening the surface of the parturient canal it prevents the natural secretions from taking place, predisposing to subinvolution of the uterus and consequent metritis and endometritis. Creolin and carbolic acid solutions (half an ounce to one gallon) are quite free from these disadvantages. In giving a uterine douche it is not a question of the amount of harm you can do to the bacteria inside the uterus, as this must necessarily be associated with serious injury to the patient. It is more a question of washing away the bacteria out of the uterus, without at the same time doing further injury to the patient; consequently it is the quantity and not the quality of the douche which is important. Routine ante-partum and post-partum douchings are not only unnecessary, but are often dangerous.

3. All instruments used during an obstetric operation should be aseptic, and when not in use should be kept in aseptic cases.

4. The proper conduct of the third stage of labor. This means, briefly, conducting the third stage with the patient on her back, the obstetrician's hand on the fundus, and waiting until the placenta comes naturally into the vagina before expressing it. If the placenta does not come naturally into the vagina within half an hour massage may be used to the fundus and gentle expression. In case the membranes get caught the placenta should be lifted gently and the membranes twisted so as to secure their coming away entire. The placenta and membranes should be now examined and, if any large piece of either be retained, steps should be taken to remove it. The uterus should be well contracted before the binder is applied.

5. The strict limitation of vaginal examinations. In an ordinary case where there is no unusual delay one vaginal examination is sufficient, made after the rupture of the membranes to ascertain if there is a prolapse of the cord. Any further information, especially as regards the position of the fetus, can be more easily and more accurately obtained by means of abdominal palpation.

6. The disuse of all so-called "aseptic lubricants." The

use of lubricants is only a means of carrying infection into the parturient canal and preventing the infection from being washed away by the liquor amnii. Lubricants are absolutely unnecessary, just as they are unnecessary in performing an abdominal section, except where the patient has sores on the vulva or vaginal wall, in which case a practitioner should use them for his own safety. The commonest so-called aseptic lubricant is carbolized vaseline. It has been proved to be a good culture medium for bacteria, the vaseline protecting the micro-organisms from the action of the carbolic acid. I once saw a large puerperal ulcer which I believe was directly due to the use of this lubricant.

7. The immediate suturing of all perineal lacerations, not only for the sake of the patient's comfort in after life, but also to diminish the extent of surface liable to infection.

♦ ♦

Wm. E. Fitch, M. D.:

With a view of differentiating, as far as possible, the various fermentative processes which the micro-organisms induce in the intestinal canal, in cases of *entero-colitis*, I have directed my attention to the odor of the stools, and have been much impressed by the readiness with which, by the odor alone, at least two general classes of fermentations can be distinguished. In the great majority of cases, without the use of direct questions, mothers even of very moderate intelligence will describe the odor of the stools as either sour or putrid. And this classification corresponds to the two great classes of food stuffs. The known fermentations of the carbohydrate foods all lead to the development of acids and gases. Under no circumstances can carbohydrates yield products with a putrid odor. On the other hand, proteids yield either odorless or putrid products.

♦ ♦

Edmund Owen, M. D.:

If a practical surgeon were asked, What is the proper *treatment of early spinal disease*? he would unhesitatingly say rest. Yes, absolute and uninterrupted rest. But there is only one way of insuring such rest for a child, and that is by making him lie flat in bed. As I shall set forth directly, he is not

to be kept actually in bed all the time; but in every case the treatment is at any rate to be commenced by imprisoning him in a pillowless bed—not, let him clearly understand, if need be, as a punishment. This, I feel sure, is the only way of successfully inaugurating the treatment of rest. But it is of little use if, when in bed, the patient is allowed to roll about, sit up for his meals, or to hang over the side of the bed in order to pick up a dropped toy. The details of the treatment must be so seriously considered, and the medical man must make it his business to see that they are loyally and thoroughly carried out. He must not content himself merely with giving his instructions; the parents will very likely want careful looking after as well as the boy, or else as soon as the doctor has left the house, or, at any rate, after a short period of rest, the boy will probably be allowed to do pretty well what he likes, and so the case will quietly drift. What the circumstances demand is the presence of a sort of clinical policeman in the house in the shape of a hospital nurse.

I know that there are all sorts of schemes, corsets, apparatus, and braces for treating spinal caries without keeping the child flat. But they are all wrong—wrong in theory and wrong in practice; and if they could be cast into the bottomless pit, and every case of spinal disease could from the beginning be treated by continuous rest in the horizontal position, there should be no more of those unsightly humps to invite speculative interference. Of course I do not include in my anathema Phelps' box splint, the double Thomas' splint with headpiece, or any form of cuirass which takes the child in bodily and keeps him flat. Indeed, the design of each one of them is well-nigh perfect. But what I want utterly and severely to condemn is the modern ambulatory treatment of spinal caries. Indeed, I think it probable that, after all the stir about the new treatment of humpbacks by forcible straightening has subsided, a most important beneficial clinical outcome will be that every surgeon will feel himself compelled to be far more careful in the adoption of patient and efficient prophylactic measures in the early days of the disease.

As I look back through many years of active hospital prac-

tice I cannot divest myself of the thought that the plaster-of-paris jacket treatment, of which, I confess, I have been a warm advocate, must be held responsible for much of the existing deformity of Pott's disease. Many a time have I seen the angular projection coming on and increasing when the child has been getting about in a plaster jacket or some other form of support.

Though the child is to be lying flat for six, twelve, eighteen, or more months, he is not to be shut up in a close bedroom. The windows are to be kept open and he is to be carried out every day into God's blessed sunshine, which is as necessary for warm-blooded animals as for plants. His muscles are to be maintained in good trim by massage, but he is to be kept all the time in a horizontal position. I know that in these days of activity and progress such unromantic treatment demands great confidence on the part of the parents in the judgment of the practitioner who insists upon it, but no little experience of it enables me with the utmost confidence to recommend it.

♦ ♦

John W. Byers, M. D.:

As there is hardly any complication met with in midwifery needing greater pluck and more resourceful and prompt action on the part of the attendant than *post-partum hemorrhage*, it is good practice in all confinement cases to see, as the second stage of labor is advancing, that everything is conveniently ready, such as hot water, the douche, with double-current intrauterine tube (Bozeman's), etc. The accoucheur, fortified in this way, acts with much greater self-reliance should hemorrhage suddenly set in. Supposing the placenta and membranes have all come away, and that then suddenly bleeding sets in with a relaxed inert uterus, what should be our line of practice?

I think the first measure to be adopted is external uterine massage. By this means the uterus is stimulated to contraction, clots are expelled, and often this method is sufficient of itself to arrest the hemorrhage.

Should this plan fail, then I recommend the use of hot water. A double-current instrument (Budin's or Bozeman's) should be employed, and it is a great advantage at the same

time to draw down the uterus by catching the anterior lip of the cervix with a vulsellum forceps. Certain precautions in the use of hot water are necessary. 1. Temperature. In maternities a bath thermometer is of use as indicating the proper temperature (118° F.) to be used; but in private practice the best rule is to use the water at that temperature which the hand immersed in it will bear. 2. Amount. The hot water should be used in large quantities. 3. The intrauterine tube should be passed up to the fundus so that the whole inner surface of the cavity is bathed. 4. Antiseptic. Some use a little creolin in the hot water. I prefer salt—a teaspoonful to the pint. Never use any corrosive in the hot water, the objection to it being that, owing to the open state of the uterine vessels, absorption takes place rapidly, with the risk (I have seen its occurrence) of mercurialism. Cold water should not be employed. It is not sterile and its low temperature has a prejudicial effect on the anæmia, while the hot water is distinctly stimulating.

The introduction of the hand into the uterus. As there is no operation I believe so dangerous to a parturient woman as the introduction of the hand of her attendant (owing to the admitted difficulty of rendering it aseptic) into the uterus, this practice should only be done when the indications are clear. If hemorrhage sets in before the placenta comes away, and if, owing to adhesions, external abdominal massage fails to expel it, then the hand must be introduced to separate and withdraw the placenta. Again, if a lobule of placenta or a piece of outlying after-birth is retained (I have mentioned the signs indicating both of these conditions) the hand should be introduced to remove the retained parts which prevent by their presence the uterus contracting on its open vessels. After the hand has been withdrawn the uterus should be carefully douched with a hot creolin lotion. In the absence of the clear indications I have mentioned the use of the hand inside the uterus is, I believe, bad practice. No doubt it stimulates the uterus to contract, but hot water will do this equally well, and there is not the same risk of septic poisoning as when the hand is introduced.

Should the preceding measures have failed then we may

try bimanual compression; but my own experience of it is that it is very fatiguing to the accoucheur and trying to the patient; and I prefer:

Gauze plugging of the uterus. A word about its technique. You may, as the text-books teach, need three lengths of four or five yards, each from three to four inches broad; but I have been struck with the fact that when the uterus is drawn down with the vulsellum in many cases very much less of the gauze is needed. The plan I can recommend from personal experience is to carry in your obstetric bag a sealed tin of sterilized iodoform gauze. Great care should be taken to plug the uterus tightly up to the fundus. The hold given by the vulsellum forceps allows sufficient counter pressure when you are packing the cavity of the uterus. The gauze acts by stimulating the uterine muscle to contract, but also by insinuating itself into the mouths of the bleeding vessels, and so directly compressing them.

The treatment which I have mentioned applies to cases of uterine inertia giving rise to hemorrhage after the delivery of the placenta. Should bleeding set in before the after-birth is delivered pressure should be at once used to bring it away, and if this fails the hand should be introduced to separate and withdraw the placenta. Should a portion of the placenta remain or a piece of membrane, or should there be the suspicion of a uterine tumor, the hand must also be introduced for diagnosis and treatment. In all such cases the uterus should afterwards be most carefully douched out with a hot creolin lotion.

♦ ♦

A. G. Dewitt, M. D.:

Nature intends that the periodical congestions of the uterus should be interrupted by pregnancy and lactation; without these interruptions the mucous lining of the uterus is liable to thicken, and by its thickness to narrow the canal. If to these menstrual congestions be added sexual congestions, this hypertrophy is greatly increased, and the barren wife is a greater sufferer than the old maid.

What is the remedy for this evil? It is *the uterine dilator*, and not constitutional treatment alone; get at the cause of the trouble, dysmenorrhea or sterility, remove that, and the

pain will subside. The woman who has been a sufferer for years, often wishing she had never been born—for she knows she must suffer half of her time, and be in bed one week out of every four—is made to enjoy life, menstruate without pain, and the woman who has been longing for a family is put in a condition so that she may conceive and give birth to a healthy child.

How shall we perform dilatation? My way, if the woman is able and has patience to be treated by slow dilatation, where rapid dilatation is not demanded by the conditions present, or by circumstances, is to have her come to my office twice a week.

First, I have the vagina thoroughly irrigated with a four per cent. solution of carbolic acid; then, placing the patient on her back, with knees well flexed, I introduce a bivalve speculum; grasping the uterus with my tenaculum, I draw it well down, so I can more easily introduce the dilator. I now take Palmer's dilator, and introduce it into the os as far as it will go; then slowly tighten the screw and dilate for fifteen or twenty minutes, when I withdraw dilator and apply a tampon of cotton with asepsin or iodoform, and have this left in for two days; after removing, irrigate vagina with hot water. I continue these treatments until the uterine canal is three-fourths of an inch wide, and the finger can be introduced into the uterus. If the woman is suffering from metritis I use the curette and pack with iodoform gauze. In these treatments I use a local anæsthetic of cocaine.



Ewing Marshall, M. D.:

A subject which causes me as much if not more concern than any other in the whole field of medicine is diphtheria. So manifold are the reports on the *serum treatment of diphtheria*, and the majority are certainly favorable, that the subject is still sub judice with me. If I allowed myself to read these reports on the surface, and not analyze them, I would quickly be converted to the serum faith; but my stiff neck will not bow before the dictum of anyone, however exalted his position may be in the world of science.

Diphtheria is certainly self-limited and confers immunity;

therefore it is especially natural to expect a part of its poison to be both curative and prophylactic. For this reason I have been more hopeful of the diphtheria antitoxin. As I said above, if we did not analyze the statistics we would have to be convinced; but just analyze them, and they generally turn out as follows: In New York during 1899, serum in common use, 11,550 cases of diphtheria, with 1925 deaths; death-rate, 16.6 per centum. Borough of Brooklyn, serum not popular, only 2894 cases, with a death-rate of 25.7. Borough of Manhattan, serum popular, 7612 cases; death-rate, 12.6. Why should there be nearly three times as many cases in Manhattan as in Brooklyn?

For several years I watched the bi-weekly reports on diphtheria in the London Lancet, and I was deeply impressed with the fact that there was certainly no diminution in the mortality in that great metropolis, where serum can be had for the asking; but generally the mortality was greater for each period reported than the decennial average. This struck me as a strong argument against antitoxin.



Gustav Kolischer, M. D.:

Respecting the dilatation of the cervix in cases of *placenta prævia* where we try to save the child, I cannot see the advisability of dilating with the fingers. The obstetrician is almost sure to lacerate the cervix if he resorts to dilatation of it by means of the fingers, and many women die in consequence of the practice of such a method. The circular veins about the uterus in *placenta prævia* are so large and the walls are so thin that the obstetrician is very apt to lacerate them. The woman is liable to bleed to death into her parametric tissue. Dilatation of the cervix by the fingers, therefore, is unsurgical and unscientific. We have other means of dilating the cervix in a uniform way. For instance, we have the use of Hegar's colpeurynter, or we can pack the vagina around the cervix, and in this way secure the necessary dilatation inside of half an hour. Such a man as Carl Braun, with an experience of a hundred and fifty thousand confinements, admitted that he had lost a number of cases of *placenta prævia* before he developed his method. Again, such

a man as Winckel, who has had a vast experience in obstetrics, and Schauta, who has had sixty thousand cases of confinements, say that they have lost cases of placenta prævia, and the latter says the reason why he does not lose more is because he knows how to treat them by dilatation by means of the colpeurynter, and packing the uterus in each case of placenta prævia where there is the slightest post-partum hemorrhage.

♦ ♦

Charles G. Cumston, M. D.:

The operation of *posterior colpotomy* for acute pelvic suppurative processes in the female may be considered in most cases one of emergency, and consequently no very elaborate preparations can be made, but if one has a day or two at his disposal the ordinary preparation as used in any abdominal operation should be employed, and particular care should be given to completely empty the intestines.

The instruments necessary are few and simple. Two ordinary hysterectomy valves, a few artery forceps, two stout tenaculum forceps, a long and stout pair of curved scissors, two large glass or rubber drainage tubes and an irrigator are all that are necessary. To operate easily in the vagina depends entirely upon the valves used, and none have given me such perfect satisfaction both in simplicity and effectiveness as those devised by Segond of Paris. We believe that the operators who speak of the vaginal route as a blind method do so because their vaginal retractors are improperly constructed and are insufficient, and it is for this reason that I have insisted on this point.

Another thing that is essential in vaginal work, in order to do it properly, is the right kind of an operating table, one in which an exaggerated Trendelenburg position can be obtained when the patient is in the lithotomy position,

After having seized the cervix with the two strong tenaculum forceps, one retractor is placed on the posterior vaginal wall, and the cervix is drawn upward toward the pubes until it cannot be drawn any farther by a gentle traction. With the stout curved scissors a transverse incision, varying from four to six centimeters in length, is made in the vaginal mucous membrane at the point where it joins the cervix. The mu-

cosa should be boldly cut through with one cut of the scissors, and then introducing the finger through the incision the adhesions are rapidly broken down, the perineum is felt, and then guiding the scissors along the finger introduced into the wound the surgeon incises the peritoneum, keeping close to the posterior aspect of the uterus. In very pronounced cases the purulent collection may project so distinctly into the cul-de-sac that the abscess pocket is opened at the same time that the incision into the mucous membrane is made. I would here say that occasionally considerable hemorrhage may arise from the vaginal incision, and if it is very considerable I think it is better to immediately ligate the vessel or vessels giving rise to the blood before proceeding, because in one case recently operated on quite a serious post-operative hemorrhage ensued, which was only arrested after considerable difficulty. I will say, however, that this case was simply the removal of the adnexa through the vagina, and not a pus case, and that the clamps placed upon the ovarian artery held well and the pedicle was carefully inspected and no oozing came from it, and after considerable trouble the bleeding point was located in the right-hand angle of the vaginal incision. This is, however, the only case where the vaginal arteries have ever given me any trouble. After the sac has been incised the pus flows out freely, and then the cavity should be explored with the finger in order to ascertain if other pockets exist, and if so they should be broken down and emptied. On several occasions I have found large pus tubes on both sides present, and in these cases, having made sure by digital examination that the general peritoneal cavity was protected by the formation of adhesions, I have opened these pockets with the scissors and inserted a large drainage tube in each with very happy results.

After the pocket or pockets have been thoroughly excavated the cavity is carefully irrigated with a 1-2000 solution of cyanide of mercury or a 1-3000 solution of citrate of silver.

If the pocket is very small, a wick of iodoform gauze may be sufficient, but it is better practice to obtain a free drainage, and for this purpose two glass drainage tubes or two red rubber drains should be introduced well up into the cavity. The vagina is next carefully packed with gauze, and an ordinary

aseptic dressing is placed over the vulva and held in place by a T bandage. The next day the pocket is carefully cleaned out with peroxide injected into one drainage tube, and after a couple of days the vaginal packing is removed and renewed. As the pocket retracts it forces the tubes downward and after a few days, usually, they may be changed for ones of smaller caliber.



A. D. Blackader, M. D.:

I am convinced of the great value of the regular and systematic employment of the cool or cold bath in the treatment of *enteric fever in children*. In my opinion a great fall in temperature, as the result of its employment, is not to be desired. Baths should be given for their action, not on the temperature but on the nervous system, and through it on the heart, respiration, and secretion, especially secretion from the kidneys. The nervous system of the child responds more quickly and energetically to the cool bath than does that of the adult, and the amount of the response, to some extent, has an inverse proportion to the age. It is unnecessary and undesirable that as low a temperature be employed in the case of a young child as in the case of an adult.

The duration of the bath, the temperature of the water, and the frequency with which the baths are employed, should be modified to suit each case; in the same way as we modify the dosage of other therapeutic remedies. Sudden and severe shock is to be avoided. I believe it to be a great and unnecessary shock to a young child to plunge it into a bath of 68°, or even 75°, at the beginning of the attack. A bath of 90° cooled to 85°, and repeated regularly for the first few days of the attack, gives rise to neither resistance nor signs of shock or collapse on the part of the child. Later on in the disease lower temperatures may be employed, if found necessary to stimulate a flagging nervous system. Even after the pyrexia falls below 102°, I believe the regular use of the cool bath once or twice a day strengthens the heart action and tends to a more rapid convalescence.



Louis Burckhardt, M. D.:

Is fever in puerperio invariably due to an inflammatory

process, or do our modern views in pathology permit the assumption of *non-infectious fevers*? According to the latest bacteriological investigations, the cavity of the womb is absolutely free of germs, pathogenic as well as non-pathogenic, before, during, and after delivery. On about the eleventh day germs of a saprophytic character are found in the uterine cavity; in a few instances they have been found from the sixth day on. For cases complicated with fever, saprophytic germs have been cultivated from the first day on all during the lying-in period. The histological condition of the inner uterine surface favors the resorption of the lochia and the development of pathogenic germs during the first days; therefore, the presence of the latter is invariably followed by an increased temperature. Later on the changes of the endometrium are such as to combat successfully the invasion of pathogenic germs. A few cases are on record where a well-marked rise of temperature took place, but where no germs could be found in the uterine cavity by any method of bacteriological examination. It is, of course, presupposed that the possibility of extra-vaginal infection has been excluded.

The germ-free uterine cavity is separated from the vagina containing all kinds of germs and leucocytes through a zone corresponding to the inner orifice, which is formed of numerous leucocytes. Under normal conditions the leucocytes and the contraction of the womb prevents a wandering of the germs up to the uterine cavity; a constant drainage through the open cervical canal keeps the womb free from an accumulation of lochia. Under pathological conditions we find the inverse state; in consequence of subinvolution the uterus is bent forward or backward, closing the cervical canal valve-like, or shreds of decidua occlude the internal orifice and hang down into the cervix and favor an ascent of the infectious germs from the vagina. In such cases there is always an accumulation of lochia in the uterine cavity, with or without a bad odor. Surgeons claim that the resorption of dead material can cause from itself fever; if this hypothesis is correct, the retention of uninfected lochia can produce a rise of temperature. I ask permission, however, to take issue with such an assumption (Kronig, Brunner, and others).

Excluding direct infection of the genital organs, as well as of the system in general, the occurrence of non-infectious fevers must be accepted, for the following reasons: There is no doubt that the irritability of the nervous system is increased during the lying-in period, so that anger, grief, or fear may cause such a disturbance of the heat-controlling centers that a sudden rise of temperature follows. The same increase of nervous susceptibility must be assumed for cases where considerable irritation of the peripheral nerves bring on fever. Not long ago a patient of mine was taken with a chill nine weeks after delivery. Temperature 104.5, right breast considerably engorged, surface reddened, no fluctuation. I ordered hot applications, some anodyne, and promised to make an incision the following morning. On my return I found my patient free of fever; the induration and pain in the breast had disappeared completely. An infection was excluded.

One of the most frequent causes of non-infectious fever is constipation, or rather ptomaine poisoning following constipation. Fecal masses that have been retained for a long time in the colon are freed through the vehement contractions of the abdominal muscles during parturition, or part of them are resolved through the influence of cathartics given in sufficient doses. The increased blood supply of the abdominal organs, and especially the increased resorptive activity of the abdominal lymphatics, favors the entrance of ptomaines formed in the fecal masses, and produces sometimes a hyperæmia of an alarming degree. I remember a case where for four weeks previous to labor, on account of nephritis, high enemata had been given three times daily, and where premature labor had been induced on account of eclampsia; here, on the evening of the fourth day, the temperature rose to 104. No local cause for the fever could be found, but a large dose of a saline cathartic brought enormous quantities of fæces, and produced an immediate fall of the temperature to the normal.



John G. Clark, M. D.:

As the question stands at present there are two cardinal methods of operating—the various modifications of the simple vaginal *hysterectomy* for *cancer of the cervix*, and the more

radical modifications of the abdominal method as proposed in recent years. According to my present view, a modification of the combined method recently suggested by Werder of Pittsburgh, offers the best chances for the thorough removal of the cancerous process. He first performs an abdominal section, and ligates both the ovarian and uterine blood supplies; the uterus is separated from its pelvic attachments and pushed down into the vagina, after which the peritoneum is whipped together over the site of the operation. This step being completed, the patient is placed in the lithotomy position, and with strong tractors the uterus is drawn outside of the vaginal outlet, which greatly facilitates the excision of a large portion of the vagina either by the actual cautery or by the knife. In operations for carcinoma I am certain that the cautery is to be preferred to the knife, for the cauterization of the local tissue undoubtedly removes all cancerous tissue that is possible. Specimens are so frequently seen in the laboratory in which the carcinomatous tissue has apparently been entirely removed, and yet microscopical sections show small isolated areas of epithelial cells on the very border line of the incision. With the cautery we may destroy, along the borders of the incision, these remaining islands of cells, and thus make a radical cure, whereas such would not be the case were the carcinoma excised. Relative to the use of the cautery, I may say that Dr. John Byrne of Brooklyn has had some very successful results from the use of the cautery in high amputations of the cervix. The late Dr. Skene, in an instructive monograph on electrohemostasis in operative surgery, has elaborated very fully the technique of electro-cauterization, and I am certain the instruments which he has described will be of the greatest value in perfecting the surgical treatment of cancer. As a summary of my personal views I feel that we have undoubtedly reached the limit of surgical operations for cancer of the uterus, and it remains to perfect these methods so that the best possible results may be obtained.

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C. B. Reed, M. D.:

I would like to call attention to the necessity of insisting upon having *the patient upon a table in using forceps*. It is

true that many cases can be terminated successfully without its use, but a table is really essential in justice to the woman. The first traction should be made downward usually, and this can be more successfully done with the woman on a table with the operator seated in front of her. As the operation is not usually one of emergency, the obstetrician ought to insist on all the necessary assistance. There should be some one to administer the anæsthetic, and there should be two other assistants, who need not be trained necessarily. This is necessary not only in justice to the woman, and the success of the puerperium, but in justice to our art. It is certainly not desirable for us to do any serious obstetrical operation without the same number of assistants as would be necessary in any other surgical procedure of equal magnitude.



Geo. Haultain, M. D.:

Dysmenorrhea may be considered as of two main types—*menstrual and premenstrual dysmenorrhea*. Both may be present. When obstruction alone exists the pain occurs at the time of, or immediately before, the flow; while in the inflammatory variety the pain would be most pronounced during the period of congestion before the actual flow occurred. If the inflamed organs were only the appendages, the depletion acquired by the flow occurring necessarily gives considerable relief; thus the so-called ovarian or tubal dysmenorrhea was mainly premenstrual in its character. On the other hand, in uterine inflammation, such as endometritis, the pain, though premenstrual, may be continued through the period by the contractions of the tender uterus, or by the thickened and swollen diseased mucosa offering a block to the easy exit of the menstrual blood. In the same way congested or inflamed ovaries, with endometritis, give rise to the combined types of premenstrual and menstrual dysmenorrhea. The obstructive or menstrual variety greatly preponderate as the initial type in the production of quite 10 to 1. The primarily purely obstructive tend in due course to become associated with the premenstrual or inflammatory, the latter being a secondary result of the former—primary obstruction, secondary endometritis, and perhaps ovaritis. As to treatment: (1) Is it possible to cure or

ameliorate the condition? If so, how? (2) Is it justifiable to adopt local treatment with the methods at our disposal? The former inquiry may be answered in the affirmative. The different causes of the symptoms have to be inquired into, and action taken accordingly. Stenosis and flexions are the most common causes, congenital anteflexion with stenosis. To remedy this dilatation may be forcible or gradual. The use of the tent, or the forcible dilatation by bougies up to 15 French or 10 Hegar is most efficacious. In the majority of aggravated cases there is a coincident endometritis, which curettage with subsequent hot vaginal douching materially assist in effecting a more rapid and permanent cure. Incision of the cervix is not so frequent, but it is of much value in establishing a permanent dilatation of the cervical canal. After incision the wound should be kept open for forty-eight hours by a strip of iodoform gauze. The treatment of the menstrual variety of dysmenorrhea by means of drugs has, in my hands, been most discouraging; a result natural to expect if we assume the cause to be a mechanical obstruction. This explanation of dysmenorrhea, as shown by the beneficial effects derived from dilatation, I uphold as the only practical explanation of the cause of the pain. Drugs could only give a temporary alleviation of the symptoms. Unfortunately the medicinal treatment resolves itself into the exhibition of stimulants and anodynes, both objectionable from their deleterious effect on the general health and morals of the individual. The alcohol and morphine habit often date from the comfort given by them during painful menstruation. In the inflammatory and congestive forms—particularly those due to ovarian causes—sedatives, such as bromides, gelsemium, camphor, and hydrastis find most favor, combined with hot applications, hip-baths, and counter-irritants. When primarily ovarian in origin such means are alone at our disposal. Primary ovarian mischief, however, is the exception. In discussing the justification of the local treatment of dysmenorrhea, patients have to be divided into married and unmarried. With the former, local examination—and, if need be, treatment—should in all cases be carried out. The unmarried are to be classed in two groups: (1) Those required by their own exertions to maintain themselves, and (2) those who did not

require to work. Those in the first group cannot afford to be laid up a day or two monthly; relief must be obtained, sentiment not considered. The second group form the main theme for discussion. Are we, for merely sentimental reasons, to allow these young women to suffer if they desire to be cured? My line of treatment is to examine them locally under an anæsthetic, and at the same time be prepared, should dilatation, uterine reposition, or curettage be indicated, to perform the necessary manipulation there and then. Among the many sentimental objections, the most common is that local manipulation directed attention to the sexual organs. Does not being hors de combat every month during the sexual function exercise an even more potent influence in the same direction? In the majority of cases menstrual pain tends to become aggravated and to set up ovaritis, which is most intractable and often incurable. The great bulk of primarily sterile women are the subjects of dysmenorrhea, and in those in whom the sterility has been cured it has only been when local treatment had been adopted and the dysmenorrhea removed.



A. M. Cartledge, M. D.:

The question about *posterior displacements* with broken perinei is one of great interest. About three of these cases apply to every gynecologist and general practitioner to one of other pelvic trouble. A woman comes into your office complaining of backache, headache, constipation, leucorrhœa, etc.; you put her upon the examining table, and the chances are ten to one that you will find the perineum broken or probably torn down to the sphincter muscle; you come in contact with the cervix low down, with a posterior displacement of the uterus; you may or may not be able, without an anæsthetic, to put your finger behind it and raise it up.

We have what is known as the pessary school, replacing the uterus either by means of the fingers with the patient in the knee-chest position, or reposition by other means, and then a pessary is inserted to hold the uterus in position. Next we have those in favor of plastic operations for the cure of these cases without pessaries or other means of suspension. Then we have men going to the other extreme, claiming that

replacement does no good, and who make an incision and practice fixation; and along with this class comes Alexander, who advocates shortening the round ligaments and nothing else.

There is no unanimity of opinion among the profession at present in regard to the treatment of these cases. In the majority of instances when these women come to us the uterus is one-third or one-half larger than it should be from the prolonged displacement, and there is a torn perineum. Now, in such a case, we may do a thorough plastic operation, which will be a perfect success, if we get the fibers of the levator ani muscle, which is really the secret of it all. I saw a woman not long ago whose perineum was torn into the bowel, yet the uterus was held up in ante flexion. This might lead a superficial observer to say that the perineum had nothing to do with holding the uterus up in proper position. Pressure of the bowel had been brought to bear on the sphincter muscle, yet she did not have that wide groove that we sometimes see in median tears, with separation of the fibers of the levator ani. That the perineum does not support the uterus I feel certain; but it does support the vagina, and it is the vagina that pulls the uterus down.

The question is, What shall we do with these women? If you do a plastic operation—a perineorrhaphy—in the course of time the woman may get well; but there is the question—the course of time. If she is a rich woman and you can send her away to rest, tone her up, give her laxatives, etc., in the course of time the vaginal muscles will regain their normal tone, the fecal masses going in the right direction; gradually the uterus will become lighter and remain in its proper position. But in nine out of every ten cases in which you do this operation, in the course of two months the patient will come back; she will have the same character of backache, headache, etc., and the uterus will not remain in position. If she has not improved under your treatment, she may consult another physician. There are two things which must be borne in mind in this connection: First, without radical work the woman must have sufficient intelligence to understand that she must devote at least ten months to getting well if

she has a posterior uterine displacement; and, second, if she wants quicker action than this she must submit to plastic operation, and then suspension.

In the majority of these cases I believe that three operations will be found necessary, viz., trachelorrhaphy, perineorrhaphy, and ventral suspension. Taking all things into consideration, and taking the cases as they apply to you for treatment, it would be better to carry out these three procedures, unless, as previously stated, the patient can devote at least eight or ten months to getting well.

Another question is, Shall we do the Alexander operation? I am not satisfied that this is the best operation, or it may be that I am not able to properly perform the operation. When I read the marvelous results of other operators by this method, I am almost forced to the conclusion that I cannot perform the operation satisfactorily, as in many instances the uterus is not thereby held up in proper position. I can do a ventral suspension in one-tenth the time required for an Alexander, with one incision, and consequently one scar instead of two, with practically no danger so far as I know.

This subject is one of great importance, and I desire to say that I feel satisfied of one thing, viz., that the separation of the fibers of the levator ani muscle allows pressure from the abdominal contents to be exerted in front instead of posteriorly, the vagina being forced downward, pulling the uterus along with it.

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M. A. D. Scharleib, M. D.:

It is very well worth while to operate on cases of *malignant disease of the uterus*, if the case comes to hand while the uterus is still freely movable and there is no obvious extension of the disease beyond this organ.

The disease is commonest about forty-five to fifty, the average age of the patients now under report being forty-seven—a time when the woman ought to be most valuable to the community.

It is not worth while to operate unless the whole disease can be removed and the patient has no other mortal disease.

The immediate percentage of death in properly selected cases should not much exceed five, and it may reasonably be

hoped that it may be still further reduced; but the immediate percentage in unsuitable cases will always remain high—(a) from unduly prolonged operation causing shock; (b) from undue bruising and injuries to tissues predisposing to sepsis, and sometimes to secondary hemorrhage; (c) also from the necessity of using clamps where ligatures cannot be applied.

The responsibility in this matter lies between the general practitioner and the specialist. The family doctor, to whom the patient usually first complains, should not be contented with ordering medicine, rest, and change of air, but should insist on examining every patient who has profuse or irregular uterine hemorrhage. Anyone who has a large practice among women, and still more the overworked out-patient official, knows the temptation to listen to a patient's objections and to postpone examination, but as a matter of conscience the examination must be made, and if sufficient information cannot be thus obtained, the further aid of the dilator, the curette, and the microscope must be invoked.

Until the idea of "change of life" is eradicated many valuable lives will be sacrificed. The teachers of gynecology must not be weary in teaching students, nurses, and patients that all hemorrhage irregular in time or in quantity is abnormal and needs treatment, not always operative. Thus gradually there will be an education of public opinion both lay and professional, and we shall no longer find that the majority of cases of uterine cancer are sent for operation long after all hope is passed, when interference only hastens the inevitable end.

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Algernon T. Bristow, M. D.:

I have had an interesting case of *extra-uterine pregnancy* recently. The lady in question had menstruated regularly until August; in August she was a week late. While hanging pictures she felt something give away; what she supposed to be menstruation then came on and continued much longer than usual. She went to the country in September, and the flow still continuing she was seen by a practitioner in the country, who desired to curette her. A day or two before the curetting she was seized with violent pain in the right side. There was no collapse at all; no symptoms of

loss of blood. She was curetted at the time appointed, a day or two afterwards. Was told that there was some thickening on the right side. She subsequently came to this city, and I saw her in consultation in November. Her temperature was 101.6°; right lower abdomen was very tender over the region of the appendix, so there was a question as to whether there might not be an appendical element. Vaginal examination showed a large mass in the pelvis to the right of the uterus. I made a median section the next day, as I judged the case was one that was urgent, and turned out a mass of broken-down clots to the right of the uterus. I found the omentum had become much inflamed and had walled off this mass of clots from the general abdominal cavity. I found the ruptured tube and the place where the fetus had been, removed both tube and ovary, and drained the sac; she made a prompt recovery.

The interesting feature of the case lies in the fact that the rupture of this tubal pregnancy had taken place early, an effusion of blood had taken place into the pelvis, not sufficient to produce any symptoms of collapse, and she was curetted under an entire misapprehension of the cause of the trouble. Because of the clots subsequently breaking down from probable infection, she came again under the care of the surgeon, who recognized the true condition of affairs, and operated.

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J. W. Byers, M. D.:

The two measures which should be adopted in every case to *prevent post-partum hemorrhage* are: (1) The proper management of the third stage of labor; and (2) the important principle never to deliver in the absence of pains. As to actual treatment the first measure to be adopted is external uterine massage, followed in order by the hot-water douche, introduction of the aseptic hand into the uterine cavity for the removal of the placenta or clots, and gauze plugging of the uterus.

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Prof. B. S. Schultze:

My method of treating *asphyxia of the newborn*, if the child is reddish-blue and there still exists some tension in the mus-

cles, is to leave it in communication with the umbilical cord as long as the heart-beat is perceptible. Remove the mucus from the mouth and excite the skin reflexes. If it does not react immediately cut the umbilical cord, plunge quickly and for a short time into very cold water, then into warm water. Repeat these immersions until the child cries loudly.

If the body of the child has the pallor and flaccidity of a cadaver immediately after death, do not expect to obtain anything by excitation of the reflexes, for precious time will be lost. Cut the cord at once, remove the mucus from the mouth and pharynx, pull out and press down the base of the tongue to elevate the epiglottis, and then do artificial respiration, either by Sylvester's method or by my method of swinging the child. Commence with a long expiration. There is no better means of cleaning the aspired mucus from the large and small bronchi. After having changed the position from expiration to inspiration eight or ten times the minute, plunge the infant into a warm bath and watch it. You will see the heart-beat become stronger and more frequent, the skin redden, and the muscular tension return. If in a short time you have not succeeded, begin again to swing the child after the bath. The expiratory movement ordinarily causes the first inspiration spontaneously. If, however, the respiration remains superficial, plunge the child into ice water. It will react at once, bend the thighs strongly, and cry aloud; the medulla now responds to reflex irritation. Never consider a child, born in a state of asphyxia, as completely resuscitated until it cries continuously and loudly.



Denslow Lewis, M. D.:

The injuries resulting from the use of *catheters to produce abortion*, and other foreign bodies introduced within the uterus with criminal intent and, as a rule, by the vagina, vary from a laceration to a complete internal perforation. In many instances such an injury heals without serious disturbance of the general health, unless there be infection. In the latter case septicæmia and salpingitis, often with pyosalpinx, are the usual results; but all the well-known effects of an extension of infection are possible. In my own experience I recall

a case seen in consultation with the late Dr. Nesbit of Sycamore, Ill., in which there occurred a metastatic abscess of the brain, first recognized at the autopsy, and another case, which I treated in the Presbyterian Hospital for four months, where fourteen abscesses formed in the patient's legs and arms.

The subsequent history of the foreign body is of interest. Its presence or absence is an element in the prognosis, and modifies the treatment very materially. Let us consider the possibilities in detail. First of all, it may perforate the uterus and pass through into the peritoneal cavity.

I had a unique case of this kind some years ago. A physician was endeavoring to produce abortion in a woman about three months pregnant, by means of a silver male catheter. The patient was nervous and had suffered from melancholia. The point of the catheter was introduced within the uterus, when suddenly the woman made a convulsive movement, and the physician, to his horror, saw the catheter disappear. When I was called to the patient, some hours afterward, I recognized a uterine perforation of the posterior wall through which I could pass a sound some 10 to 15 cm., but I could not feel the catheter within the abdominal cavity. Coeliotomy was performed, but nothing was discovered in the pelvis. Finally the intestines were brought out of the abdominal cavity, and, after some little search, I found the catheter under the liver and removed it. The uterine wound was closed with three sero-serous sutures, and the right tube and ovary were removed, for it was noticed they were diseased. The patient made an uneventful recovery, and some six months later, after a normal labor, was delivered of a child, which is now eleven years old.

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Henry R. Hopkins, M. D.:

Quite closely associated in the minds of both profession and laity are *scarlet fever and measles*, and in hygienic management and curative treatment we are wont to think of them along similar lines; while the fact is they have nothing so conspicuous as their contrasts, and may be treated with widely differing hygienic methods. Scarlet fever is infectious; measles is not. Measles is highly contagious; scarlet fever feebly so, if at all. The invasion of scarlet fever

is abrupt, explosive; that of measles is slow, frequently lasting days or a week. The period of incubation in scarlet fever is short—three to five days; that of measles long—ten to fifteen days. Isolation to be of any use should be enforced in measles from the exposure, or at the end of the period of incubation, while in scarlet fever it is efficacious at any time during the early days of the eruption. With the coming of the eruption in measles the communicability of the disease seems to be over; in scarlet fever the fading of the eruption shows that the period of communicability is about to begin.

Materia Medica.

Baryta Carb. in Rachitis.

Will be found suitable to many cases in dwarfed children, i. e., in those of imperfect development.

Podophyllum in Post-partum Period.

F. L. Ward, M. D., Medical Century: Pain in right ovarian region, associated with pain in uterus as if all would fall out when at stool. Rumbling of gases in ascending colon.

Cuprum Acetum in Epilepsy.

J. R. Haynes, M. D., Hahn. Advocate: The aura begins in the knees, and ascends to the hypogastric region, when unconsciousness occurs; foaming at the mouth, and falls down convulsed; as soon as the patient goes into a high-ceiling room reels and loses consciousness.

Argentum Nit. in Ovarian Disease.

Hering gives argentum nitricum as having similar symptoms on the left side to those of palladium on the right side. He says he for years gave frequently arg. nit. in ovarian and uterine troubles, especially with prolapsus, if accompanied by pain in the left hypochondriac region and groin, but when the symptoms went over to the right side palladium was often the remedy needed.

Belladonna in Uterine Hemorrhage.

W. A. Dewey, M. D.: The flow is bright red and feels hot to the parts during the discharge; there is bearing down as if the organs would protrude from vulva; congestion of the head with throbbing carotids; ineffectual desire to attain sleep; the pains are fitful, appearing and disappearing suddenly; offensive flow in young women apparently healthy; urticaria during menstruation.

Apis Mel. in Nephritis of Pregnancy.

L. L. Danforth, M. D., N. A. Jour. Hom.: Urine scanty, high-colored, albuminous, and containing uriniferous tubular casts and epithelium; œdema of face, hands, and lower extremities; great prostration, combined with waxy, pale, transparent skin; sometimes an eruption here and there resembling nettle-rash; red pimples or an erysipelatous rosy appearance of the anasarcaous limbs; mental restlessness; thirstlessness.

Arsenic in Infantile Eczema.

Dr. Neuberger, Archiv f. Derm. und Syphilis, has had good results from the treatment of chronic eczema in infants by the internal administration of arsenic. To infants of two years and upwards he gives one drop of a mixture of equal parts of Fowler's Solution and distilled water. This is given in milk after the midday meal, and gradually increased to six or seven drops. In sucklings and infants under two years of age he gives one drop of Fowler's Solution of the strength of one in three, and this is gradually increased to five drops. The infants are said to take the drug well, and no bad symptoms were observed. The treatment usually lasts sixteen or eighteen weeks, and relapses sometimes occur.

Lycopodium for Uterine Fibroma.

Wallace M'George, M. D., Hahnemannian: Lycopodium is useful in uterine polypi and in uterine cancer. Hering recommends it in erectile tumors and polypi; also in dry, pediculated, painless condylomata. He says lycopodium is suitable for old women, persons of keen intellect but feeble muscular development. Dr. Kent says: Lycopodium is suited to low forms of disease, chronic disease, corrosive forms of disease,

such as we find in corroding ulcers of the stomach, eruptions like epithelioma, infiltrations beneath ulcers, manifestations of warty growths, of all kinds of fevers and eruptions of low anæmic conditions. Lycopodium has pinching pains in internal organs; all discharges are offensive except flatus, which is generally odorless. Heavy sensation in bladder, burning on urination; urging to urinate, but must wait long before it will pass, or inability to void urine with constant bearing down; rumbling begins in upper abdomen and descends to lower part, when a flow of blood follows, and so on successively; uterine hemorrhage.

Sulphur at the Menopause.

P. E. Krichbaum, M. D.: Sulphur at the menopause is a standby. When this remedy is indicated the individual is apt to present certain physical peculiarities, old land-marks as it were, so familiar to you all that I would not recall them were it not for the fact that they go to make up the picture which I wish to focus upon your mind's eye. We are told that the constitutional bias under sulphur is the keynote to the remedy. An old student of materia medica is generally able to prescribe sulphur without putting a single interrogation to his patient. He notes the stooping shoulders, the narrow chest, the dirty hue of the skin, where the marks of past eruptions are still apparent to practiced observation, the temperament of the patient, as indicated in facial expression, carriage, movement, voice, all bear their quota of significance.

The woman is sure to complain of headache, usually a vertex pain. She will tell you of her burning feet, her smothering spells, and the tormenting hot flashes indicative of the general vaso-motor disturbance that is so often a morbid accompaniment of this period. She will complain of intense itching and burning in the vulva, any leucorrhœal discharge that she may have will be acrid and excoriating. If she suffers from metrorrhagia, the flow will be thick and black, and markedly intermittent like creosote. Her appetite is variable. On rising in the morning, she feels no desire to eat, but grows faint and hungry around 11 a. m., and must then satisfy her craving for food or she knows that she will

succumb. She is irritable in mood, exacting and imperious, a difficult person to live with, disposed to overestimate her own importance, similar to platina in this respect, though under platina the exalted state of mind has more of the strictly personal in it. Sulphur magnifies the attractiveness of her belongings. She has fantastic illusions, old rags appear to her fancy like rich garments.

New Instruments.

GROOVED DIRECTOR FOR VAGINAL HYSTERECTOMY.—UTERINE ELEVATING FORCEPS.*

BY E. D. FERGUSON, M. D.

Though simplicity and fewness of instruments in operative work is the pride of many surgeons, there can be no question concerning the help that most operators find in special devices to meet special indications. The two instruments which I present have been tested in actual work and have been found helpful.

The first which I show is a director intended to be passed behind the broad ligament in vaginal hysterectomy, thereby bringing at once into the operative field, and in full view of the operator, the lateral tissues to be incised.

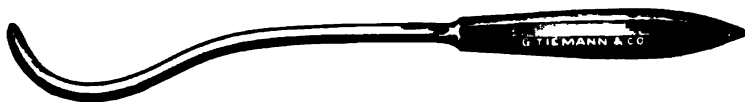
Having opened freely into the pouch of Douglas and having freed the bladder from the uterus, the left index finger of the operator is passed behind the broad ligament and made to appear above that structure at the side of the uterus, the peritoneum having been incised previously at the corresponding vesical fold, or the opening being made on the end of the finger which shows above the broad ligament.

Having made sure that no tissue, aside from that belonging to the broad ligament, is included by the finger and having

* Read at the Meeting of the New York County Medical Association, October 15, 1900.

sufficiently separated the parts, the director is passed along the palmar surface of the finger until its tip appears well below the broad ligament, when the finger can be withdrawn. The instrument is curved so as to allow of its use when the broad ligament will not permit free descent of the uterus, though in most cases in actual use the director can be advanced until the broad ligament lies on the convex portion.

Having thus brought the broad ligament well into view, the groove in the director enables the operator to ligate securely in sections the uterine connections on the selected side, that side being the one more readily secured by the



finger. The method of ligation will be that in which the operator is most facile, the writer preferring the cobbler's stitch, made with a strong kangaroo tendon. The separation of the uterus can go hand in hand with the ligation, which when completed allows the uterus, now freed on one side, to be turned out of the vagina, thus affording opportunity for the ligation of the opposite broad ligament and excision of the uterus. Of course, it is understood that at the lower portion of each broad ligament care is taken to avoid the ureter, but it seems to the writer that if the director emerges close to the uterus at its cervical portion, and the sewing is done along the line of the groove, the ureter will necessarily lie to the outside and remain unharmed.

The reintroduction of forcible and moderately protracted compression as a means to control hemorrhage, notably in the use of the angiotribe, would seem to lessen materially the occasion for the device which I present, and the convenience and even utility of the angiotribe is freely conceded by the writer.

There is one condition for the safe use of the angiotribe which should be kept in view, and that is that the stump should have no rude handling after the incision, otherwise the vessels may be re-opened. Should we be unable to in-

clude all the parts we wish to excise in the grasp of the angiotribe, the traction and manipulation necessary to bring other and higher parts into view may result in embarrassing or even serious hemorrhage. At present it is believed that most operators will feel a sense of security in interrupted but locked suturing of the broad ligament, and in particular where the condition of the organs is such as to render it desirable to attack the ovaries after the removal of the uterus.

The other instrument is intended to aid in bringing the uterus into the operation field in ventral suspension of the uterus.

It is only occasional that the operator will feel the urgent need of such a device, though in many cases he will find it a convenience.

In cases where the uterus is somewhat rigid in its retroflexed form, and the pelvic tissues do not allow it to remain



placed with slight support, this device will be found a convenience. If added to these obstacles to easy operating, we have to deal with a thick layer of abdominal fat in a patient subject to ether retching, the difficulties of the operation become great without some device like the uterine elevating forceps.

The method of application is simple, one blade being applied behind the uterus on the palmar surface of the requisite number of fingers, the other blade being placed in front of the uterus, when on locking and compressing the uterus, that organ is completely under the control of the operator, who proceeds to place the anterior stitch, passing it through the fundus of the uterus between the blades of the forceps. As soon as this stitch is made to include both lateral walls and the uterus, the forceps can be removed, as the uterus is now under control.

It is possible that the shape of the blades would have been modified if the author could have been at the side of the instrument-maker, for the shape is not entirely satisfactory to him, though Tiemann & Co. have done exceedingly well from the rather poor drawings which were furnished. In actual work, however, the instrument has never failed to fill all requirements and that without any detectable abrasion on the uterus.

Translations.

RETENTION OF DEAD FETUS TO TERM.

Belly, *Rev. Mens. de Gynéc., Obstét., et Pædiat. de Bordeaux*, reports a case where the fetus died about the fourth month and was retained to term. The patient was thirty-eight, and had been married for eleven years; she had miscarried three times and borne two children to term. The last period was seen at the end of July, 1899. All the signs of pregnancy developed and proceeded normally till the end of November, when the patient received a shock. After that date she ceased to increase in size; indeed the abdomen soon began to grow less and less. The appetite and strength distinctly improved. The cervix was hardly, if at all, softened. The uterus seemed to be retroverted by a firm tumor, which felt more like a fibroid than a gravid uterine body. A case had recently been observed where amenorrhœa for five months and escape of colostrum-like fluid from the breasts had naturally given rise to suspicion of pregnancy, but at the operation the tumor was found to be a uterine fibroid with no fetus in the uterine cavity. On the 8th of May natural labor pains set in, and Belly's patient was delivered of a fleshy mass weighing over three-quarters of a pound. It was firm and whitish, the membranes were thickened and intact, the placenta was shriveled and clearly had been for long detached from the uterus. On opening the membrane a thick dust-colored fluid escaped and the fetus appeared. It was

covered with calcareous deposit, which had almost obliterated the cranial sutures and made the limbs and even the cord rigid and brittle. In short, mummification had set in. In Vivie's recent case of retained fetus septic symptoms set in; in Belly's case there was no evidence of sepsis. Fieux, in a discussion on Belly's case, referred to the death of the fetus at the fifth month by twisting of the cord round the arm (sic). It was delivered four months later, just at term. Vivie believed that sepsis might occur even when the membranes remained intact. In long retention of a fetus the cervix undergoes a characteristic toughening, quite unlike the toughening of that part of the uterus when gravidity does not exist.

ECHINOCOCCI SIMULATING OVARIAN DERMOID.

Sternberg, *Centralbl. f. Gynäk.*, No. 29, reports a case under the care of Gersuny of Vienna. The patient was a girl, aged twenty, who had noticed a tumor below the umbilicus to the right for two years; it grew steadily larger, and dull pains set in in the right hypochondrium. The tumor was very smooth and round, and fluctuated distinctly; its mobility was very marked. It seemed to be a dermoid of the right ovary. In Douglas' pouch lay a fixed, fluctuating tumor; its convexity rose high above the pelvic brim. Another tuberous mass lay in the left loin; it was movable, and seemed attached by a pedicle to the loin as far back as the left kidney, which could be easily defined. Abdominal section was performed. The right ovary was found stretched over the tumor, which lay to the right below the umbilicus. The tumor was enucleated from the broad ligament, and the incision with the remains of the ovary sewn together. The mass in Douglas' pouch was much more difficult to enucleate; the left ovary was stretched over its capsule, as on the right side. Then it became clear that the tumors were hydatid. The omentum was infested with echinococcous cysts of varied sizes; small cysts lay in the mesentery of the vermiform appendix. Two large cysts occupied the right lobe of the liver; they showed signs of old suppuration, and were no doubt the starting

point of the disease. The mesenteric cysts were enucleated. One of the cysts in the liver was opened, then iodoform-glycerine emulsion poured in, and the cyst closed. The patient made a good recovery; prognosis is doubtful, as there may be cysts remaining in other organs. The ovary is rarely involved in hydatid disease.

MESENTERIC CYST.

Schramm, Berl. klin. Woch., operated on a woman, aged forty-eight, free from any history of disease or injury until two years previously, when digestive troubles, constipation (very severe), abdominal swelling, and dyspnœa were noticed. Schramm found the abdomen extremely swollen, and tympanitic. On careful palpation a tumor of the size of an adult head was detected. It fluctuated, and was dull on percussion. There was resonance in both flanks. On vaginal exploration the tumor was found to be separate from the uterus. Ovarian cyst was diagnosed, and it happened that a tumor of this kind, as large as an orange, was discovered at the operation, where a median incision was made below the umbilicus, and a very thin-walled cyst, the chief cause of the enlargement, was then seen to lie between the folds of the mesentery. It was enucleated without much difficulty, and held over thirteen pints of a watery fluid. The redundant mesenteric flaps were resected, and some vessels ligatured. The cyst wall was fibrous, and lined internally with a layer of endothelial cells. Schramm considers that this tumor was a cystic dilatation of the mesenteric chyle ducts. The ovarian cyst was also removed; the patient did very well.

HEMORRHAGE AT EIGHTH MONTH; RUPTURE OF SINUS CIRCULARIS.

Demelin and Gadaud, L'Obstétrique, report that a primipara, aged thirty-one, was attacked with uterine hemorrhage and sharp abdominal pain when advanced seven and three-quarter months in pregnancy. Next day the flooding ceased. The fetal movements stopped on the day of hemorrhage,

March 12. On the 17th the uterus was felt to be smaller; the fetal heart had ceased to beat. The inferior segment was very thin. Rupture of the circular sinus was diagnosed by exclusion; there was no evidence of detachment of the placenta or of placenta prævia. On March 18 a macerated fetus was expelled spontaneously; there was no trouble with the placenta. Recovery was rapid. There was a mass of clot close to the border of the placenta which compressed its cotyledons; from the clot dark-brown vascular tracts ran on each side to the circumference of the placenta, but at the point where the clot touched the placenta no trace of the circular sinus existed.

THE PLANTAR REFLEX IN THE NEWBORN INFANT.

Gaetano Finizio, *Pediatria*, draws certain conclusions from the study of the plantar reflex in over five hundred newborn infants in the Maternity of Naples. He notes the difficulties of exact observation of this reflex in young infants, and points out that it is necessary to elicit it when the muscles of the leg and foot are relaxed; further, he has found that in the same newborn infant tickling the sole will cause flexion of the toes, while pricking will produce extension, so that in order to get reliable results the same degree of cutaneous excitation must be employed. In five per cent. of the cases (infants from one to three days old), the plantar reflex was absent; in ten per cent. it was indefinite; in fifteen per cent. it produced extension of the great toe alone or of all the toes; and in seventy per cent. it caused flexion of the toes. It may, therefore, be concluded that in the great majority of newborn infants the plantar reflex shows itself in flexion of the digits. The cases in which there was digital extension were generally those in which the birth had been abnormal—for example, delayed labor, forceps application, face presentation, etc.; in two instances in which forceps had been used there was flexion of the toes on one side, and extension on the other. The plantar reflex is one of the most constant of all the skin reflexes; on the other hand, the cremasteric reflex is only

met with in two per cent. of newborn infants; the patellar reflex, like the plantar, is present in seventy per cent. of the cases. When extension of the toes is met with, the other cutaneous and tendon reflexes are often well marked and active.

REMARKABLE SUCCESS IN THE TREATMENT OF ECLAMPSIA.

V. V. Stroganoff, Vrach, St. Petersburg: Out of ninety-two cases of eclampsia which Stronganoff has had occasion to treat during the last three years, only five patients have died, and two of these were moribund when received. The third died from sepsis twenty-seven days after termination of the eclampsia, the fourth from pneumonia, and the fifth from atonic hemorrhage four days after the eclampsia was over, the delivery being complicated in this case by a ventrofixation done four years previously. Seventy-nine out of the ninety-eight infants were saved. He considers eclampsia a self-limited, infectious disease, the contagion air-borne, but so slightly virulent that no one except a woman in the puerperium is affected by it. His treatment includes a combination of morphine and chloral, the former for its influence on the sensory centers and the latter to control the convulsions. By this means he arrests the attacks in twenty-four to forty-eight hours; the urine increases in quantity and the secretion of mucus diminishes. He has evolved the following system, which he urgently advocates: First, a subcutaneous injection of .015 gm. morphine hydrochlorate during the first attack, or when first seen, repeated in one hour. The third hour a rectal injection of two or three gm. of chloral hydrate is administered and repeated the seventh hour. The thirteenth hour a similar rectal injection of 1.5 to 2.5 gm. chloral is given and repeated the twenty-first hour. The twenty-ninth hour another rectal injection of one to two gm. of chloral is administered and repeated the thirty-seventh and forty-fifth hours. If the comatose condition still continues, with headache, especially if delivery is not terminated, the patient is still kept narcotized with small doses, .015 to .03 gm. of mor-

phine and four gm. chloral for the following twenty-four hours. Systematically proceeding in this manner, the recurrence of the attacks is prevented and delivery occurs normally or can be hastened without danger to mother or child. His tabulated statistics show that the number of attacks in all his cases averaged only 2.4 to 3.3 per patient, while in other institutions they ranged from 6.9 to 9.5 during the same periods. He lays great stress on the importance of relieving the heart and lungs of every source of irritation, mechanical, physical, or mental. The heart-action becomes very much depressed during an attack. Continuous reclining on the left side should not be allowed, nor even the pressure of the hand or arm on the heart or lung region. The clothing, blankets, or pillows should not be allowed to bind or weigh on the thorax in any way to impede the action of the heart or lungs. The mouth and nose must be kept free from obstruction from mucus. Fluids should be supplied by subcutaneous injection of one hundred and fifty to two hundred c.c. of salt solution or rectal injection of a liter in four or six parts during the day. Warm milk can be substituted for the salt solution in case of protracted eclampsia. Inhalation of oxygen and other measures, as indicated, will also be found beneficial. The patient should be turned from the right to the left side and back again every hour or hour and a half, and other measures should be applied to loosen and favor the expulsion of mucus. If the lung symptoms become alarming and œdema is threatened, great benefit can be arrived from dry cupping. These minor points are all of great importance, but the chief aim in treatment is the suppression of the convulsions which can surely be accomplished by the system outlined.

EXTRACTION OF LIVING TWIN NINETEEN MINUTES AFTER DEATH OF MOTHER.

Kirch, *Centralbl. f. Gynäk.*, was called in by the friends of a shopkeeper's wife who, they said, had just died suddenly, three-quarters of an hour after giving birth to a child. She was forty, and subject to mitral disease, the result of rheuma-

tism. Very grave cardiac symptoms had developed at the end of the previous pregnancy. Kirch at once visited the patient, who lived close to his house; he found her quite dead; much sanious mucus had run out of her mouth on to the pillow. A nurse was attending the newborn child. Kirch found a fetal leg projecting from the vulva. He at once extracted the fetus—it was asphyxiated, but was revived; however, it died within a few hours. On the evidence of Kirch and the nurse the second twin was delivered just nineteen minutes after the death of the mother. The husband stated that the patient had calculated term at three weeks later. She was working in the shop till 10 p. m.; a few minutes later pains set in, then the membranes ruptured. She was speedily put to bed and the child was at once delivered spontaneously. Dyspnoea then set in, lasting for some time, when the woman suddenly ceased to breathe, froth escaping from the mouth. Kirch arrived a little before midnight.

PROLAPSE OF URETHRAL MUCOUS MEMBRANE.

Voillemin, Thèse de Paris, attributes this condition to unusual laxity of the submucous connective tissue, which is normally abundant. The mucous membrane slides downwards till it appears at the meatus as a more or less circular pad. This disorder is met with in children from two to twelve, and in women between fifty and seventy-five; it is exceptional in adults in the prime of sexual life. The predisposing causes are said to be weakening of the tissues concerned from different reasons, frequent child-bearing, and senile involution. The most common exciting cause is straining in coughing, defecation, and micturition. Hence prolapse occurs very rapidly in some cases. Vulvo-vaginitis, urethritis, and injuries appear to have some influence in causing this disease. The first symptom is dysuria; straining, to which the patient naturally resorts, increases the obstruction by forcing down more mucous membrane. A little red projection is then to be detected, generally on the posterior edge of the meatus; sometimes a second lies on the anterior edge; the two puzzle

the observer as to their nature. More rarely at this early stage a complete circle of mucosa comes down, an appearance easier to interpret correctly. When established the prolapse causes sharp pain not only during micturition, but also in walking, and in making any effort. Coitus becomes very painful. The prolapse bleeds during micturition and at other times, but never severely. When advanced the everted mucosa becomes oedematous and very painful, small areas of slough develop, and may cause severe bleeding. Diagnosis is easy when the prolapse is complete, as a probe can be passed through the center of the red swelling, but cannot be pushed at any point between the swelling and the urethral walls. At an early stage reduction of the prolapse is often sufficient, if a compress be applied and the patient kept at rest. Astringent lotions may prove beneficial. Cauterization is less satisfactory, ligature not to be thought of. The thermo-cautery or galvano-cautery may be used for the removal of the mass, but excision with scissors, followed by suture of the edges of the mucous membrane to the border of the meatus, is the best proceeding for the permanent cure of a large prolapse.

INHALATIONS AS PREVENTIVE OF SCARLET FEVER AND MEASLES.

J. Elgart, Wiener Klinische Wochenschrift: The author's experience has convinced him that the throat affection in exanthematous diseases is primary and in reality the essence of the disease. He consequently reasoned that prompt sterilization of the throat would abort or prevent the disease. He is assistant physician at a large children's hospital where epidemics of scarlet fever and measles have been of frequent occurrence, children succumbing who had entered the hospital merely for ear or eye troubles, etc. In 1897 he inaugurated a system of inhalations, requiring every child to stand for five minutes in front of a spray apparatus and inhale the spray for five minutes twice a day. The disinfectant used was a three per cent. solution of boric acid or lime-water, or iodine trichlorate in a .05 per cent. solution. The number of

children thus treated was two hundred and fourteen, and not a single case of either scarlet fever or measles occurred during the year. During a temporary absence the inhalations were suspended and three cases of scarlet fever or varicella developed. On his return the inhalations were resumed and there has not been a case since to date. He observes that it is less expensive to sterilize the nose and throat of the patient than to disinfect a suite of rooms. If the experience of others confirms his results, we can assume that inhalations of a disinfectant fluid will prevent epidemics of scarlet fever and measles, at least when the type of the epidemic in the environment is mild. In five hundred and ten cases previously noted in the hospital the presence of an angina is mentioned in every case except eight. In two of these no inquiry was made in regard to the condition of the throat and in the rest not until about the sixth day, when a pre-existing angina might have had time to subside.

TORSION OF PEDICLE OF PEDUNCULATED FIBROID.

Schwarz, *Comptes Rendus de la Soc. d'Obstét. de Paris*, reports a case of a relatively rare condition compared with torsion of the ovarian pedicle. The patient was a nullipara, aged forty-eight, regular and free from metrorrhagia. In July, 1899, she suffered from severe general peritonitis; the symptoms lasted for six weeks. In convalescence a hard fixed tumor was detected in the hypogastrium and left flank, mounting to the false ribs. In the middle of April Schwarz saw her and diagnosed torsion of the pedicle of a fibroid, as he had observed a similar case three years before, and there was evidence of torsion of a pedunculated tumor which was clearly connected with the uterus. He operated and found the tumor adherent to the parietes, intestine, and omentum. On separation of the adhesions the tumor appeared like a large kidney, about four inches long by nearly eight broad. It was connected with the right cornu of the uterus by a pedicle only two-fifths of an inch long and as thick as a stout pencil. It was twisted one turn and a half.

The tumor was removed, the pedicle being ligatured. As a myoma lay in the posterior wall of the uterus and the patient was forty-eight, Schwarz removed the appendages. The pelvis was drained on account of oozing. The patient recovered.

"EXOTHYROPEXY" IN A NEWLY-BORN INFANT.

Genevet, Lyon Méd., showed an infant one week old before the Soc. des Sciences Méd. de Lyon, who, at birth, was in a state of apparent death. After being resuscitated by energetic treatment there were great dyspnœa, noisy respiration, and retraction of the ribs. No nourishment could be taken. Pollosson discovered a tumor in the neck so small that it was not easily detected. It was uncertain whether it was the thymus gland, a hemorrhage into a cyst of the thyroid, or a goiter. A median incision was made, and a fairly large goiter, which dipped deeply backwards, was found. The tumor was pulled outside the wound by gentle traction (exothyropexy), and the dyspnœa ceased at once and did not return. The hypertrophied lobe was left outside the wound without any dressing, as Pollosson preferred to await its atrophy, and later, if necessary, to hasten it by a few punctures of the thermo-cautery to excising it. The child's mother was goitrous, and had lost a former child with similar symptoms.

BREECH PRESENTATIONS: VALUE OF PROPHYLAXIS.

De Monchy, Nederland. Tijdschrift van Geneeskunde, places a low value on manipulation for the conversion of breech into head presentations, and objects to its being taught to midwives. In the Leyden extern practice, 100 breech cases occurred in the ten years ending last autumn. The students are of necessity not highly experienced, and the resident assistant obstetrician is changed almost yearly. Nevertheless, 93 children were born alive, 42 without help from the

assistant, 7 were delivered asphyxiated or dead, including, it must be noted, 1 case of placenta prævia; only 3, it appears, were lost. Out of the 93 cases, 18 were in primiparæ, whilst out of the 3 cases where the child was dead 2 occurred in primiparæ. During the same period, 25 breech cases were delivered in the Leyden Maternity; 20 children were saved, 11 of these cases being in primiparæ; 5 children were born dead; in 2 the labor was premature and the pelvis narrow; in 2 there was placenta prævia, in 1 congenital malformation of the child. In many of the above successful cases labor was so quick that the student had hardly time to manipulate. Not a single child was lost when the resident assistant was present. Prophylactic turning, then, is of questionable value, so well do most breech cases fare, if not interfered with too much. Explorations weekly or fortnightly, during the later stages of labor, worry the patient. Midwives are now, as ever, too fond of counting breech presentation as pathological, and, therefore, too ready to interfere.

EARLY TUBAL PREGNANCY; DIFFICULTIES IN DIAGNOSIS.

Toth, *Centralbl. f. Gynäk.*, publishes two cases which seem to show that extrauterine gestation is even commoner than is now suspected, and that pelvic inflammation, often its cause, may mask its earlier stages completely. The first patient had been treated for a protracted period for extensive inflammatory exudation in the pelvis. After antiphlogistic measures it partially disappeared, and then a well-defined bilateral tumor was discovered. At the operation a tubo-ovarian cyst was found on the left side, and on the right a dilated tube, distended with blood, and a small hæmatocele. Chorionic villi were detected in the right tube. The history of the case gave no indications of the possibility of tubal gestation. In the second case abdominal section was performed for a bilateral tumor; as in the first, no evidence of pregnancy of any kind was to be obtained. An ovarian tumor was removed, and on the opposite—the left—side a distended tube, full of clot, was found. Its ostium opened into a great mass

of clot in Douglas' pouch. Chorionic villi were detected in the tube. Both patients recovered.

PLACENTA PRÆVIA; AIR IN VEINS.

Hubl, Wien. klin. Woch., reports two deaths in placenta prævia cases, from the entrance of air into the veins. The first patient was a rachitic woman, aged forty. She had borne five children. There was very severe flooding; the tampon was applied for forty-eight hours, and then version was performed under an anæsthetic. Little blood was lost during the latter maneuver, yet the patient died suddenly. The left ventricle was found contracted; the right ventricle and pulmonary artery were resonant on percussion, and distended with air. In the second case there was no necropsy. The patient was delivered, then became cyanosed, suffered from severe dyspnœa, and died fourteen hours after delivery. The cardiac area was increased, but was resonant on percussion, and bubbling sounds were heard on auscultation.

PRIMARY CANCER OF FALLOPIAN TUBE.

Novy, Monats. f. Geburts. u. Gynäk., publishes a full report of a case under the care of Pawlik of Prague. The patient was a widow, aged seventy, she was extremely fat, and had pendulous abdomen. She had borne ten children. Cancer of the vagina was diagnosed, but nothing more than colpitis granulosa detected. Sanious discharge was distinctly noted. The curette being used, a piece of tissue was removed which bore the character of adeno-carcinoma; but at every other point on the endometrium that was scraped the tissues only showed evidence of endometritis glandularis. Hysterectomy was performed on August 11, 1896, Pawlik reserving publication till a sound after-history could be obtained. The vagina was divided around its attachment to the cervix, but the uterus was not freely movable, and could not be drawn downwards. An abdominal incision was therefore made. Then a tumor was detected. It consisted of the right tube.

The uterus was removed, together with the right appendages; the ligatures, excepting one applied to the right ovarian vessels, were drawn down into the vagina. The vaginal wound was closed and the abdominal wound drained, because the patient was so fat. Recovery from the operation was complete, though slow. The patient enjoyed two years' complete immunity; then recurrence set in, causing death in five months. The tube was quite healthy in its inner or uterine third, and the remainder was the seat of cancer, apparently malignant degeneration of a papilloma. The malignant deposit in the endometrium was secondary.

TERTIARY SYPHILIS APPEARING IN PREGNANCY.

Marschner, *Centralbl. f. Gynäk.*, publishes notes of a woman, aged twenty-seven, who, after two normal pregnancies, miscarried four times. At the beginning of her seventh pregnancy she was treated carefully with potassium iodide, though no symptom of syphilis had apparently been noted beyond the suspicious miscarriages. At the fourth month, notwithstanding all care in treatment, specific ulcers appeared on the perineum and labia. Within a week the integuments of the perineum and the mucous membrane of the vulva and vagina were completely destroyed. During this process the patient was taking tannic oxide of mercury by the mouth. The ulceration was stopped by local application of mercury dissolved in fuming nitric acid and large doses of potassium iodide. Abortion, however, followed. Six months later a fresh attack of ulceration occurred, finally cured, after much trouble, by Zittmann's decoction.

EXTRAUTERINE PREGNANCY; TWISTED PEDICLE.

Pozzi, *La Gynécologie*, reports a case where the patient ceased to menstruate after the beginning of last January. On the 19th of that month she was seized with sharp abdominal

pain, with show of blood. The pains and metrorrhagia continued till an operation was performed on April 2. At that date the cervix was large, soft, and patulous. The body of the uterus was anteflexed, and above and to the left was a mass as big as a fetal head, and of the consistence of a fibroma. On opening the abdomen a very dark tumor was detected; it looked as though it were an ovarian cyst with twisted pedicle. It was covered above with adherent omentum, and was found on careful scrutiny to be a distended right tube twisted over to the left. The pedicle was twisted a whole turn from right to left. The tumor weighed under three-quarters of a pound. It contained a fetus of the third month, of normal development, dead, but not macerated. The outer part of the left tube was obliterated. Pozzi made an artificial ostium. The patient recovered.

SINGLE PLACENTA IN CASE OF TRIPLETS.

Saniter, Monats. f. Geburts. u. Gynäk., recently exhibited before the Berlin Obstetrical and Gynecological Society a single placenta which was delivered after the birth of three infants, all males and all breech presentations; they measured each about twelve inches. All died shortly after birth.

DYSMENORRHEA MEMBRANACEA.

G. Kollmann, M. D., Wiener Klinische Wochenschrift: It seems evident, from the research described, that dysmenorrhea membranacea has no connection with pregnancy and abortion and does not occasion sterility, while it may heal spontaneously. Besides the dysmenorrheic membranes have nothing to do with inflammation of the uterine mucous membrane; that the fibrin membranes should be considered true dysmenorrheic membranes; that they are easily confounded with blood clots or the products of a croupous inflammation, but that in reality they are the product of a necrosis induced by hemorrhage and exudation into the tissues.

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TREATMENT PREPARATORY TO CONFINEMENT.*

BY E. G. FREYERMUTH, M. D.,

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The subject assigned me may not, on first thought, seem of sufficient importance to command the attention, but when we think of the annoying, distressing, and even dangerous, complications that sometimes attend labor, which for the most part can be averted by proper attention to the patient prior to her confinement, and when we remember that the leading obstetricians of the day hold that the pregnant woman should be under the observation of her medical attendant during at least the latter part—two or three months—of her gestation, this question does assume an importance of some dignity. The proper treatment preparatory for confinement will include attention to the individual in her girlhood days, when her generative organs, and the muscular and nervous systems are undergoing the process of development. In this critical time fond and proud, but misguided, mothers confine their daughters in corsets and stays in order to make them of comely shapes and

* Read before the Homeopathic Medical Society of the State of Colorado.

attractive figures. This custom causes, first, lack of development of the abdominal muscles; second, displacement of the abdominal as well as the pelvic viscera; third, compression of the stomach so a proper amount of food cannot be ingested, with consequent insufficient nourishment of the body and nervous reflexes; fourth, embarrassed respiration and improper oxygenation of the blood.

Thus impeded, the girl, the young lady, the matured (?) woman is hindered in her digestion, exercise, respiration, movements, and functivity of nearly every organ of her body. This pernicious practice becomes second nature to most women as they advance in years. Positively uncomfortable without a corset and feeling the need of a support to keep from "falling together"; and often in distress with the "abdominal harness," as Professor Ludlam used to say, in place; the average woman is not only a martyr to society, but also unfit for the highest function of womanhood—illegally prepared for parturition, which would not be the ordeal it is—dreaded by all women—if the civilized human race exercised common sense in the rearing of its girls.

A proper observance of hygienic measures during pregnancy is necessary in the preparation for confinement. To this end the pregnant woman should be urged to take much outdoor exercise. Her sleeping apartments should be large, airy, and well ventilated. All constrictions about the body that will impede the circulation and free movements of the muscles must be studiously avoided. Her surroundings should be pleasant and agreeable. Her irritability and petulancy should not be regarded as moral faults. They are often due to the dread of the approaching confinement, and should not be harshly treated. Inunction of the abdominal walls with oil, etc., should be encouraged, but are only useful in proportion to the amount of massage employed. I have no confidence in the routine treatment which prescribes gels., macrotine, or any other remedy during pregnancy, in the absence of definite indications, to prepare the soft parts for labor.

Frequent urinalysis should be made after the sixth month of gestation. If albumen in the urine appears, in appreciable amount, the patient should be regarded in a serious condition

and active measures employed to prevent eclampsia. She should be placed on the milk diet, the emunctories stimulated, the indicated remedy administered, and the case carefully watched. Edema of the face, especially if under the eyes, even in the absence of albuminuria, should receive the same treatment.

My views on this subject are fully set forth in a paper I wrote, at the request of the editor, for the special obstetrical number of the *Medical Century*, published last April, and as that issue of the journal contains six other valuable and able papers on the prevention and treatment of eclampsia, by leading obstetricians and college professors of our school, I refer those interested to that publication.

Varicose conditions of the veins about the vulva and vagina of the pregnant woman merit the painstaking care of the physician to prevent thrombosis and rupture during labor—serious complications. Such a patient should be abstemious with her diet, which should be exclusively vegetable, and should avoid stimulating drinks and indigestible food. The bowels should not be allowed to become constipated. Moderate exercise should call into action every muscle in the body. The knee-chest position should be assumed quite often during the day in order to relieve the pressure on the iliac veins. Pads and bandages should be so adjusted as to prevent excessive dilatation of the veins. The materia medica should be studied for the simillimum.

After the seventh month of gestation the patient should be carefully examined for the detection of mal-presentation of the fetus. This should be corrected at once and can usually be accomplished by external manipulations, but internal assistance may sometimes be necessary. The nipples should receive some attention towards the close of gestation. If retracted, efforts should be made to bring them out sufficiently to allow grasping by the infant's mouth. All vegetations and excrescences should be removed under local anæsthesia. Washing with cold water and alcohol two or three times a day and exposing them frequently to the air will harden the nipples and prepare them for suckling, and will prevent tenderness, soreness, and cracking during lactation. Slight pinching and kneading will

also be useful to this end. It is needless to add that any constitutional disturbance the patient may present must be met with the indicated remedy.

The treatment immediate to confinement should include the sterilization of all sheets, cloths, pads, towels, douche tubes, etc., that are to be used during the accouchement. The patient should have a high enema at the appearance of the first symptoms of labor, also a full bath and thorough scrubbing of the genitalia and thighs. This should be followed by a douche of plain sterilized hot water,—about two quarts,—which may be repeated two or three times if dilatation does not progress satisfactorily. She should be encouraged to walk about the room until near the close of the first stage of labor. The accoucheur should have the hands and arms to the elbows surgically clean before the internal examinations are made, and should maintain them in that condition until the completion of labor. Basins containing sterile solutions should always be on hand for immersion and cleansing of the hands. Quantities of boiled water, hot and cold, and sterilized vinegar should be in readiness for a possible post-partum hemorrhage. Obstetric needles and artery forceps, catgut and silkworm-gut ligatures, gauze, etc., should be prepared and ready when their use is demanded. By no means the least duty of the accoucheur is to see that the nurse and the patient herself practice strict asepsis during the progress of parturition and in the puerperium.



ADIPOSIS DOLOROSA.—A PECULIAR FORM OF FATTY DEGENERATION.—CASE WITH FIVE ILLUSTRATIONS.

BY WILLIAM DAVIS FOSTER, M. D.,

Professor of Surgery, Kansas City Homeopathic Medical College.

By fatty degeneration—fatty metamorphosis degeneratio adiposa—is understood a perversion of nutrition whereby tissues are converted into fat. Whatever term may be used to characterize the condition,—obesity, corpulence, or embonpoint,—when it becomes very marked, it is an exhibition of the same pathological process. Most commonly the changes specified occur in the muscular tissue. The deposits of fat may be somewhat symmetrically distributed; again the degenerative process may attack the abdominal muscles—the muscles about the chest, involving the mammary glands; the glutei muscles, or the muscles of the legs. In another instance there may be a localized area alone involved, resulting in a fatty tumor (lipoma).

Instances of enormous weight are found scattered through medical literature. Probably the most famous of all the fat men was Daniel Lambert, born March 13, 1770, in the parish of St. Margaret, Leicester. He did not differ from other youths until fourteen. He started to learn the trade of a die-sinker and engraver in Birmingham. At about nineteen he began to believe he would be very heavy, and developed great strength. He could lift 500 pounds with great ease and could kick seven feet high while standing on one leg. In 1793 he weighed 448 pounds; at this time he became sensitive as to his appearance. In June, 1809, he weighed 52 stone 11 pounds (739 pounds), and measured over three yards around the body and over one yard around the leg. He had many visitors, and it is said that once, when the dwarf Borwilaski came to see him, he asked the little man how much cloth he needed for a suit. When told about three-quarters of a yard, he replied that one of his sleeves would be ample. Another famous man was Edward Bright, sometimes called the "fat man of Essex." He

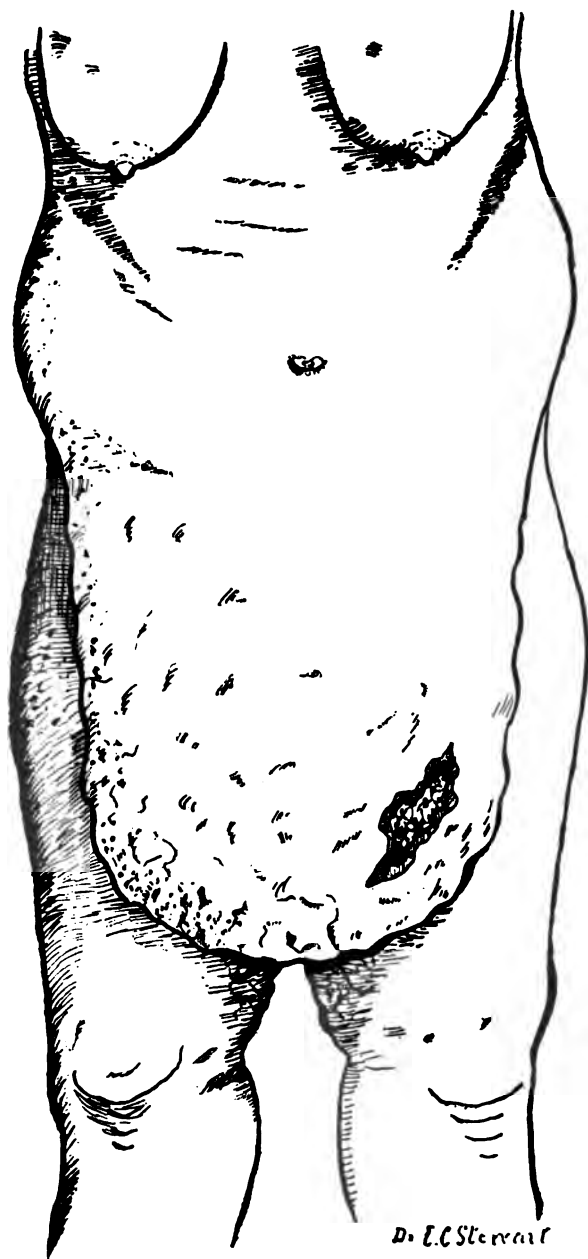


Fig 1
*Showing Pendulous Abdomen
(Front View)*

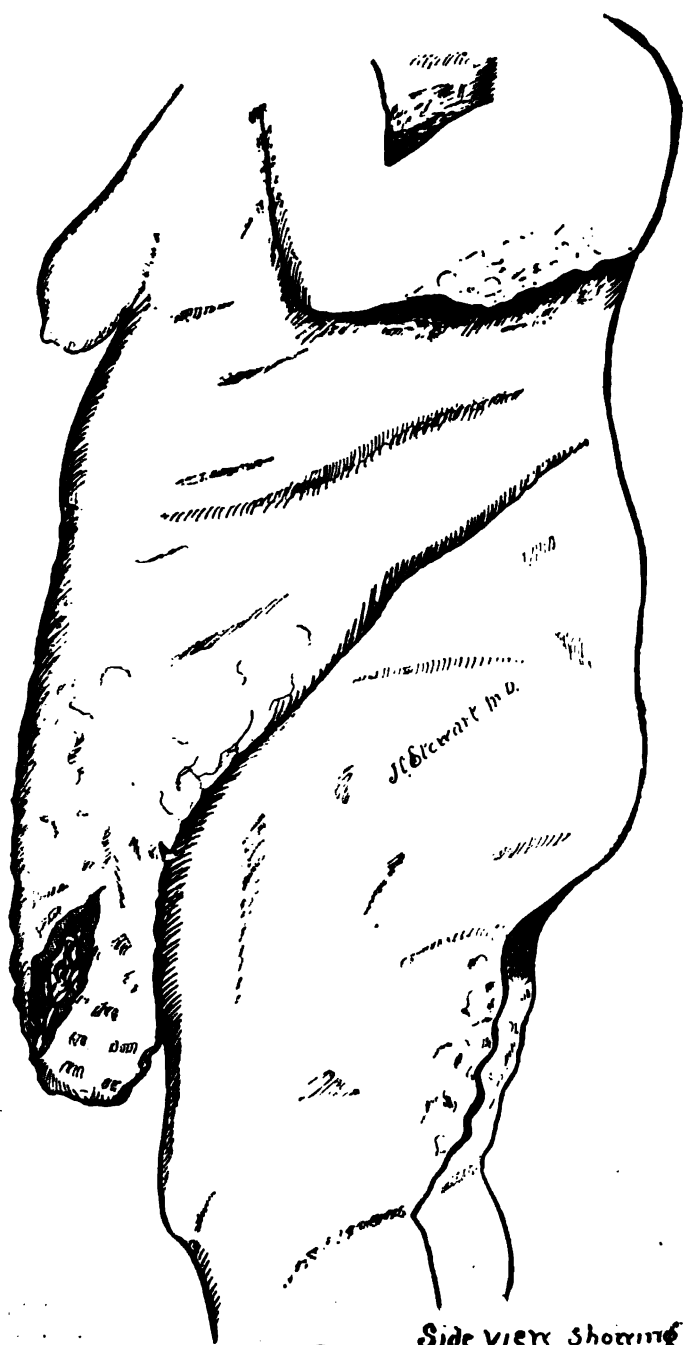


Fig 2 Side view showing
location of ulcer

weighed 616 pounds. In the same journal that records Bright's weight is an account of a man exhibited in Holland who weighed 503 pounds. (Lancet, 1837.)

The Medical Press and Circular, London, 1888, gives an account of a colored woman, who died near Baltimore, who weighed 850 pounds, exceeding the great Daniel Lambert 120 pounds. The same journal quotes the Medical Record as saying that there was a man in North Carolina, born in 1798, who was seven feet eight inches tall and weighed over a thousand pounds, probably the largest man who ever lived. Hutchinson reports (Archives of Surgery) that he saw in the infirmary at Kensington, under Porter's care, a remarkable example of obesity. The woman was only just able to walk about, and presented a close resemblance to Daniel Lambert. Obesity forced her to leave her occupation. The accumulation of fat on the abdomen, back, and thighs was enormous.

Case I.—Mrs. T., æt. 42, and resident of this city, of German parentage, came under observation February 25, 1896. I was requested to see this lady with my friend, Dr. J. C. Stewart. The patient is married, the mother of six children, menstruates regular. Height, five feet, six inches; weight, 276 pounds. She measured, circumference around the abdomen, seventy inches; the mammary glands were extremely pendulous, falling much lower than is shown in the cuts. This accumulation of fat had been coming on for more than twenty-five years. The patient had been under medical treatment all the time, using also all the patent anti-fat remedies that came to her knowledge, thus spending all the money they could raise.

Of the six children, five are boys, short and of spare build. The girl is very fat, round, smooth, and of good shape. The patient's husband was a short, spare, and scrawny man. Most of the children at birth presented by the breech. The child of the eldest son, the only grandchild born, so far as known, was a breech presentation; was twenty-four inches long, enormously fat, and born dead.

On March 26, 1896, at the patient's residence, with the assistance of Drs. E. R. Heath and J. C. Stewart, the following operation was made: The patient being fully anæsthetized the entire field was shaved and thoroughly sterilized. The inci-

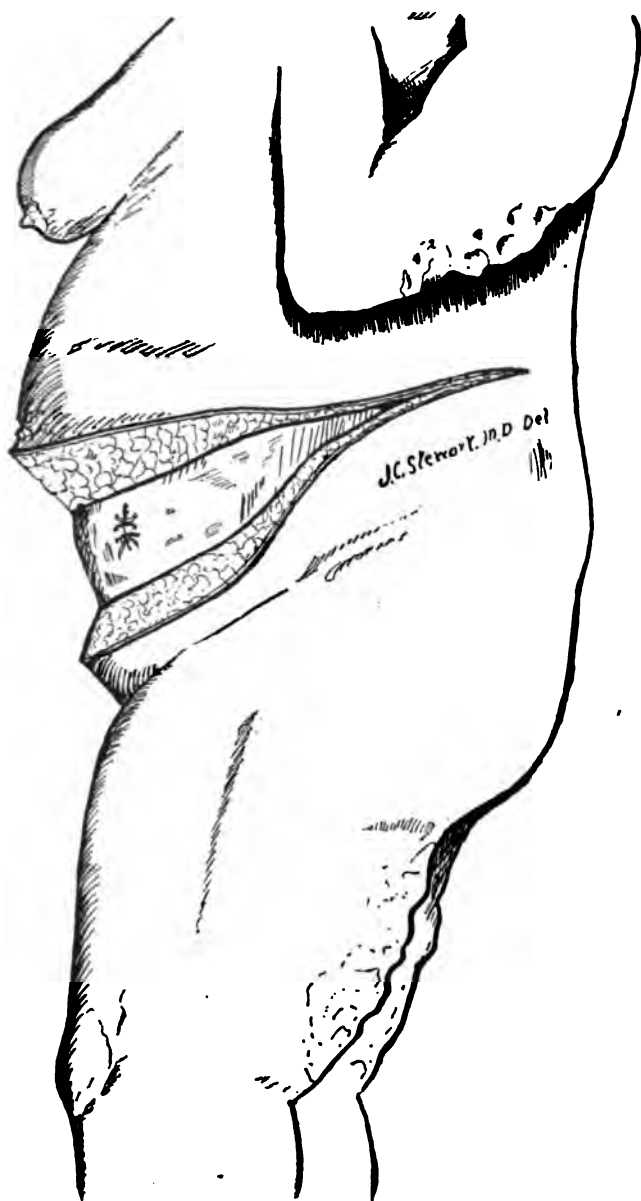


Fig. 3.
Showing lines of Incision

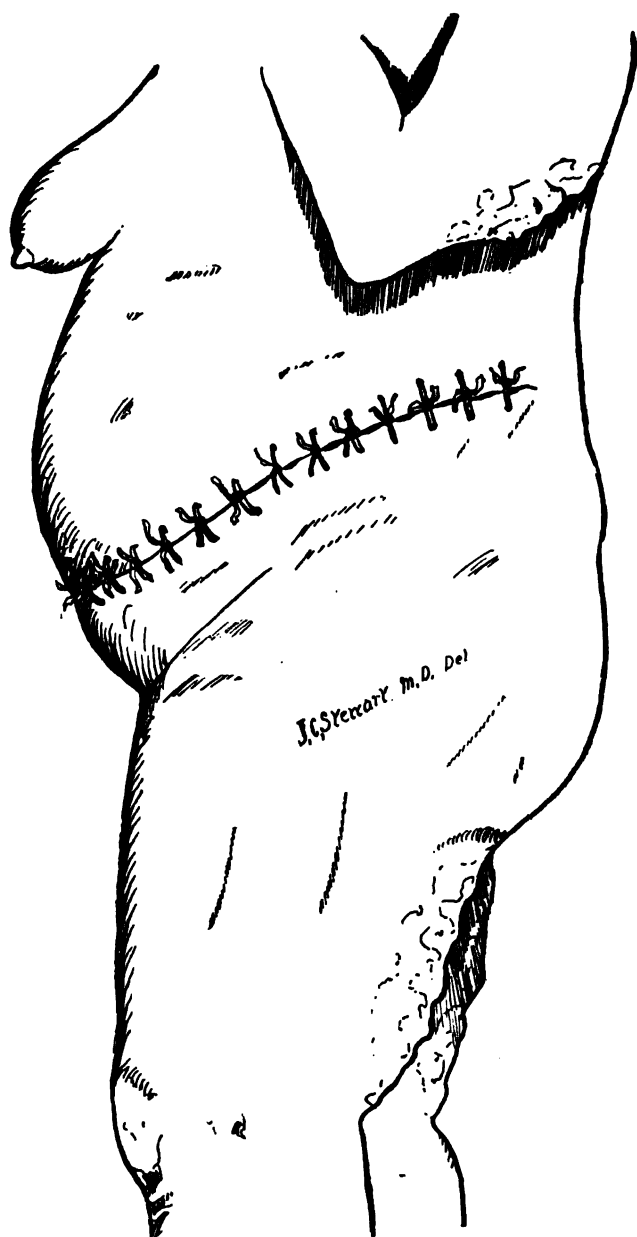


Fig. 4.
Showing Parts Sutured together

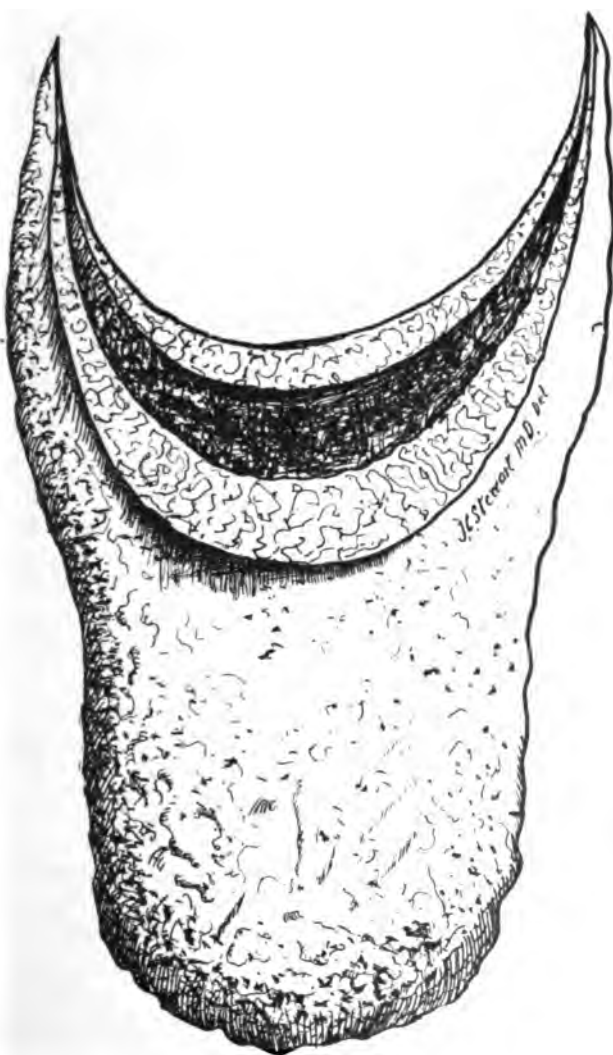


Fig. 5
Showing under surface
of portion removed, 57 pounds

sion was made, beginning at the center part of the pendulous mass (which had begun to slough as shown in the cut) on the left side of the body, about twelve inches in front of the spinal column, extended to the middle of the body, on an angle, and then continued to a point corresponding to that at which the incision was begun, carried downward toward the center of the body, and completed by terminating at the point of beginning. The tissue thus removed was of rectangular shape, fifty-two inches long from the point of beginning on the back to the corresponding point on the back on the opposite side, and sixteen inches wide at the middle part from navel to pubes. The pendulous part extended from the upper line of the incision, as shown in the illustration, twenty-two inches to the knees, and would average six inches in thickness, the whole mass weighing fifty-seven pounds. It was found that the muscular tissue had entirely disappeared, the mass being composed solely of fat. The removal of this enormous mass uncovered the peritoneum, showing this membrane overlaid with a little connective tissue at all points exposed. During the dissection the peritoneum was unfortunately opened, as shown in the figure. This was immediately closed with catgut and caused no complications. The patient made an uneventful recovery, the wound healing at all points by primary union. At this date, four and one-half years after the operation, there has been no recurrence of the abdominal redundancy.

The drawings from which the illustrations were made are kindly furnished by J. C. Stewart, M. D., of this city. They correctly represent the different steps of the operation, and the different appearances of the abdomen when the wound was closed.

NAUSEA AND VOMITING IN PREGNANCY.

BY LUCY M. BUSENBARK, M. D.

Nausea and vomiting in pregnancy have for their causes nearly all varieties of pathological derangement which can possibly produce reflex disturbance. The most frequent causes are to be found in the digestive system. Displacements of the uterus and local congestions in the various pelvic organs are well-known ætiological factors. Cervical erosions are active agents, and endometritis is perhaps one of the most stubborn conditions to contend with, more frequently requiring obstetrical interference than other varieties.

Veit attributes an uncontrollable vomiting to endometritis. There are other authors who consider rigidity of the os uteri as persistent a cause. Ulceration of the stomach or malignant diseases usually exist in the more desperate varieties.

It is impossible to describe these conditions in distinctly pathognomonic pathological symptoms because of the variety of ætiological factors. In some cases it is impossible to find any lesion whatever. Many writers attribute to central nervous affections the ætiological factors. Some writers speak of this condition as if it were physiological, especially if occurring only in the morning, and consider it rather salutary than otherwise, and that the pathological condition is only a question of degree, becoming pernicious in its extreme form.

Pernicious vomiting may have its origin in a variety of morbid conditions of special organs, or in a highly sensitive state of sympathetically related organs. A general instability of the nervous system produces an exaggerated response to normal reflex stimuli.

Hyperæsthetic states of the spinal and sympathetic nerves of the uterus, mental shocks, and strong emotions, are very productive of disturbed digestion in pregnancy. Pathological conditions of the uterus, muscular tumors, diseases of the cervix, either glandular or muscular, as well as in the connective tissue, and cicatricial tissue, the result of former lacerations, produce sufficient irritation to create serious reflex disturbance.

Chronic salpingitis, pyosalpinx, or inflammation of the ovaries increase to a high degree the hyperæsthetical condition necessary to disturb the stomach.

Pernicious vomiting is more frequent in women who have previously borne children, and from pathological states pre-existing, whether in the stomach or intestines.

Chronic gastric catarrh and derangement of the liver are predisposing factors. Chronic constipation and the consequent toxæmia have a most deleterious influence upon the nervous system.

Uræmic poisoning is a frequent cause. The prognosis is usually favorable unless in the graver varieties. One author, reporting 118 cases of this form, lost by death 46, 4 recovered, and the remainder were relieved only after the spontaneous or artificially induced abortion.

The treatment is hygienic, medical, or obstetrical. A change of residence, as from the city to the country, an entirely new diet, especially choosing an article of nourishment for which there may be a particular desire. Possibly iced lime water and milk, or ice cream, may be tolerated, and prepare the way for taking other food; effervescent drinks may be employed.

The medicines advised are very many, and by their number testify to the fact that results accomplished are quite uncertain. Among those used by the old school are tincture of *nux vomica*, oxalate of cerium, dilute hydrocyanic acid, sub-nitrate of bismuth, chloroform or sulphuric ether (each of the two latter given in doses of a few drops with water, or in perles), the various preparations of pepsin, chloral, bromide of potassium, and opium (or one of its liquid forms) or morphia. Inhalations of oxygen have occasionally succeeded, and also the use of electricity; recently cocaine has been strongly recommended. The application of ether spray to the epigastrium has been employed; so, too, have Chapman's ice-bags to the spine. A small blister to the epigastrium, in some cases followed by the use of morphia endermically, has relieved some.

Of course a uterine displacement should be corrected. Cauterization of the cervix, and the application of belladonna to the vaginal portion, have been employed with occasional success. Copeman used digital dilatation of the cervical canal, while others have leeches the cervix.

The obstetric treatment consists in the induction of abortion, or, if the pregnancy has continued until the child is viable, of premature labor. But this grave step is rarely required, and ought not to be undertaken until the usual means for the arrest of the disease have been vainly tried, and until the condition of the patient is such that her life is in imminent peril from the disease. It should also be borne in mind that while in the majority of cases the vomiting ceases when the uterus is emptied, or soon after, there are some in which no such happy result follows; and, on the other hand, that cases now and then are seen in which the disorder is most grave and has persisted notwithstanding well-directed remedies, so that the practitioner despairs of a favorable ending, and yet, with some slight dietetic or medicinal change, sudden improvement takes place and the disease ceases.

The induction of abortion is not to be thought of if the patient has passed into the third stage of the disease, for then death is inevitable, and may be hastened by this treatment, bringing alike reproach upon the method and the art. (Leavitt.)

Production of vesication over the fourth and fifth dorsal vertebræ will often afford great relief. The same may be said of the glycerin tampon and of the well-fitted abdominal supporter.

The list of homeopathic remedies which may be found useful in this condition is long, but there are a few especially prominent.

Ipecac should be given when the nausea is the predominant symptom, attended with vomiting of bilious matters, undigested food, and large quantities of mucus; arsenicum when the vomiting occurs after eating and drinking and there are faintness and excessive prostration of the vital forces; tabacum in those cases where there is nausea, with faintness and deathly pallor, relieved by being in the open air, vomiting of water, acid fluid, and mucus.

Psorinum is suited to obstinate cases, especially in women presenting the psoric diathesis; pulsatilla, especially when the vomiting comes on in the evening or night, the appetite is capricious, the woman craving beer, acid, wines, etc., with much eructation tasting of the ingesta (specially suited to mild, tear-

ful women) ; acetic acid when there is sour belching and vomiting, with profuse water-brash and salivation ; colchicum when the following symptom is well marked : excessive nausea, even to faintness, produced by the odor of fish, eggs, meat, etc. ; bryonia when the nausea and vomiting are brought on or decidedly aggravated by the least motion. *Veratrum album* is well suited to the same symptoms.

Phosphoric acid, a few drops of the dilute acid in a half-glass of water, and a teaspoonful every two hours, is often of the greatest service.

Applying the effects of the voltaic current upon disorders of the stomach in general, Gautier advocates its employment in the vomiting of pregnancy, of which he has cured twenty cases by this method. The positive pole is applied over the pneumogastric, phrenic, and sympathetic nerves above the right clavicle between the two insertions of the sterno-mastoid ; the negative at the level of the umbilicus. The current used is descending, of slight intensity and long duration. An ascending current provokes, while descending relieves vomiting. A strength of eight to ten milliamperes, on an average, is sufficient, and care must be taken to make and break the circuit gently, by using a rheostat or a battery from which single cells can be cut out. Each application should last from one-quarter to one-half hour.

Dr. J. B. Carney (Australian Med. Jour.) relates a case of vomiting in pregnancy relieved by the application of cocaine to the cervix uteri. On vaginal examination the uterus was found markedly anteflexed ; the cervix was much swollen, and the surface, especially about the os, eroded and bled freely when touched ; the erosion extended into the cervical canal. The whole of the vaginal wall, the cervix, and cervical canal, to the extent of about one inch, were painted with a saturated solution of cocaine, and a suppository containing a grain of cocaine and a quarter of a grain of morphia was placed against the os uteri. The patient (who had been vomiting severely for ten days and was unable to retain the least nourishment) did not vomit for eight hours after the cocaine was applied. At the expiration of that period vomiting recommenced, but was less severe. The application of cocaine was repeated, after which she made an uninterrupted recovery.

L. L. Danforth, M. D., (Transactions of the American Institute of Homeopathy) says: "When diseased conditions of the cervix exist, the puncture of cysts, the use of boroglycerite tampons, and perhaps a careful dilatation of cicatricial bands at the internal os, will often prove highly beneficial in relieving some cases. Most of us believe more or less in the doctrines of the 'official philosophy,' and the principles underlying this system may be occasionally applied with benefit to severe cases of vomiting in pregnancy. Disease of the corporeal endometrium is often productive of abortion as well as hyperemesis. This condition cannot be treated during the existence of pregnancy, but it should be taken into consideration after the pregnancy is terminated, to prevent a recurrence of the malady in succeeding pregnancies."

There are certain remedies which he finds often indicated, and for which he gives his special method of administration. Among these he mentions arsenicum as first in importance. This remedy corresponds more closely to pernicious vomiting than any other. He gives it in the 200th attenuation in water every two hours. If the patient cannot retain even a teaspoonful of the liquid on the tongue, he then gives just enough to wet the tongue, not enough to swallow, repeated at short intervals. If even this small amount is irritating he medicates the smallest pellets (No 10) with the 200th dilution, and drops a few on the tongue every hour. He has seen the most aggravated cases improve on this remedy, and believes arsenic to be the remedy par excellence in many cases.

Bryonia, 200th, will prove very useful even in the worst cases, if given like arsenicum, when the patient vomits or retches every time she moves even one hand or turns in bed. The concomitant symptoms of bryonia are so well known that he does not repeat them.

Symphoro corpus racemosa (the snowberry) is useful in cases resembling the bryonia condition. The characteristic symptom of this remedy is this: As long as the patient lies in bed horizontal and perfectly quiet she does not feel the desire to vomit, repugnance to food or to the odor of it when being cooked. The remedy is especially useful in cases of reflex nausea. This remedy he has used with the best effect in the second or third decimal trituration.

Phosphorus has recently relieved a most aggravated case, with the vomiting of sour food, the burning at pit of stomach, weakness in abdomen, etc.

As an example a patient may be dosed with unusual remedies. A case of hyperemesis which had as its distinguishing symptom profuse salivation, with continued nausea and vomiting, was relieved by *jaborandi*, 3x trit. The patient complained of a sense of soreness in the stomach and abdomen, and vomited as soon as she swallowed liquids or solids.

There is one point which he believes we do not sufficiently realize in the treatment of these cases, and that is persistence in the use of the remedy we believe to be the right one; then to give the smallest possible dose. In most of the cases of pernicious vomiting he has seen he has had the best results with the higher potencies. When the indicated remedy did not act, by giving a dose of sulphur, 200, with the principal remedy he has secured the desired result. Sulphur, by the way, is often the remedy. He is furthermore of the opinion that if we had our cases from the beginning of pregnancy, and regulated the diet at the same time that we prescribed our remedies for moderate vomiting, there would be fewer cases of pernicious vomiting."

Dr. C. F. Baker found *ingluvin* useful in two cases of nausea of pregnancy.

Believing that the vomiting of pregnancy is a nervous affection, Klein treats it by an exclusive liquid diet, with no alcohol, neither tea nor coffee, unless very rarely; and the patient is put to bed and kept there in isolation until at least three days after the vomiting has ceased.

Gallois (*Sem. méd.*) has used oxygenated water in the vomiting of pregnancy for three years, and had had only two cases where it failed to cure. This treatment has no effect on ordinary gastric vomiting, but Bonnet has had excellent results with it in the vomiting of tuberculous patients. It is doubtful how it acts; partly, perhaps, by giving up its oxygen, and partly by neutralizing the toxic properties of some ptomaine.

Bacon, in the *Journal of Medical Science*, defines vomiting during pregnancy as due to a variety of dietetic causes acting upon the normally irritable nervous system of the pregnant woman.

In extreme cases subcutaneous saline injections serve the threefold purpose of (a) diluting the blood and increasing vascular tension; (b) eliminating toxins through venal and intestinal emunctories; (c) furnishing two most important kinds of food.

One can but conclude, in the review of the testimony of many writers on this subject, and comparing their experiences with those of any personally known physician's endeavors, that each individual pregnant woman is a law unto herself, in whom we must look for all the information leading us to a correct diagnosis of ætiological factors. Until such ætiological factors are known it is impossible for the physician to apply either the material or dynamic force necessary to re-establish the physical stability of our patient.



DIAGNOSIS AND TREATMENT OF UTERINE
CANCER.

BY E. N. LEAKE, A. M., M. D.

The diagnosis and treatment of uterine cancer has devolved upon the writer from necessity, and has grown into a very interesting subject. Cancer seems to be a disease of civilization. Pathologically, it is perverted nutrition, and while there seem to be many exciting causes, I believe the vis a tergo is the nervous system. The microscopic examination of malignant growths reveals the fact that it is made up of the normal cells of the different tissues of the body, but found in abnormal conditions and positions. The cells, instead of occupying regular positions, as in healthy tissue, are in a very irregular, conglomerate state. Excessive worry and grief seem to be a prolific cause. Lacerated cervix is known to be a fruitful exciting cause; however, it requires more than the laceration. Plenty of women live to ripe old age with badly lacerated cervixes. How often a woman, after great grief and business worry (coincident upon the death of the husband, perhaps), will develop malignant ulceration of a torn cervix. However, nowhere in the domain of medicine is it more true that "*Qui bene diagnoscit, bene medebitur*," and in most cases the burden rests upon the shoulders of the general practitioner, for it is to him the woman first applies for the relief of one or more symptoms which are present. To attempt to make a diagnosis from symptoms alone is not only dangerous, but impossible. There are no symptoms pathognomonic of the early stages of uterine cancer. Pain, hemorrhage, and discharge, we were formerly taught, were symptoms of uterine cancer; so they are, but these symptoms indicate that the case is a hopeless one. Pain is unfortunately associated in the mind of the laity with the development of cancer in any part of the body.

How often, when patients are chided for not attending to themselves sooner, they say, "Well, doctor, I would have come sooner, but I have had no pain whatever till recently"! Of all the aids to early diagnosis of uterine cancer pain is the least

valuable. Discharge is present very frequently when there is a uterine cancer, but this discharge in the early stages is not due to cancer, but to the pre-existing endometritis, and no doubt catarrhal inflammations of mucous membranes play an important rôle in predisposing to the development of malignant disease. Hemorrhage presents a more valuable diagnostic hint, so to speak, in arousing our suspicions; more it cannot do. We certainly cannot diagnose cancer of any organ by hemorrhage, and least of all can we do so in the one organ that is subject to physiological hemorrhage. However, hemorrhage from the uterus either as menorrhagia or metrorrhagia, should always, at any time of life, be looked upon with suspicion, especially so at the menopause. Dr. Winter truly says the menopause is the bugbear to the early diagnosis of uterine cancer. How many hundred women yearly lose their lives because the menopause is blamed for symptoms that are produced by malignant ulceration, and incidentally to almost anything female flesh is heir to. How frequently are we able to trace back the symptoms of an advanced uterine cancer to a neglected sanguineous discharge coming on about the time of the menopause. On the other hand, we are too prone to look for this disease in advanced age. Bäckér's statistics from the university clinic of Budapest showed that from 1882 to 1895, 11,095 women were treated. Seven hundred and five had uterine cancer—6.35 per cent. Of the 705 women with cancer there were between 21-25 years, 14; 26-30, 45; 31-35, 90; 36-40, 134; 41-45, 157; 46-50, 127; 51-55, 71; 56-60, 44; 61-65, 15; 66-70, 5. During the years of sexual activity, 21-45, 62 per cent. At time of climacteric, 46-55, 28 per cent. After climacteric, 9 per cent. These statistics demonstrate conclusively a fact not generally recognized, viz.: that the majority of cases of uterine cancer are found before the menopause, and quite a few during the earlier years of sexual activity. We must, therefore, be on the lookout, no matter what the age of the patient. Endometritis is undoubtedly an ætiological factor. Bäckér found in 70 cases of removed uteri only 3 did not have endometritis. As endometritis is common in nulliparæ as well as virgins, we may expect to find, as we do, cancer in these cases. Many observers think now that lacerations have little to do as predis-

posing causes of cancer. Williams and Fehling both declared lately they never saw a carcinoma originate in a tear, and I believe they seldom do, but I have seen a great many epithelioma originate in a tear. The general ætiological factors, such as heredity, overwork, mental worry, poor food, etc., play an important part here. In summarizing, we may conclude that no age is exempt. We may find it in early life, middle age, and more rarely old age. It develops in virgins, in nulliparæ as well as in multiparæ. It frequently develops from a cervical tear, but more often from chronic endometritis.

Since there are no symptoms to be relied upon, what means have we to-day for arriving at an early diagnosis of a malignant uterine growth.

First: Inspection and palpation with or without anæsthetic. This does not reveal the character of the structure; then it is our aim to diagnose cancer before it can be felt.

Second: Dilatation of uterine cavity, with introduction of finger, will only reveal to us at best the location to be most carefully curetted.

Third: Microscopic examination of uterine scrapings.

We often find in the same uterus areas of approximately normal tissue side by side with areas showing malignant degeneration. Therefore the uterus should be scraped most carefully to remove as much tissue as can safely be done; for this purpose the cervical and uterine canals must generally be dilated, and a sharp curette should always be used. Wiemer says not the slightest reliance can be placed on an examination of scrapings removed by a dull curette. Very often the growth starts as a hard nodule over which a dull instrument will glide without removing any part of it. Then, again, some new growths originate some distance from the surface, which only a sharp instrument can dislodge. The amount of time and labor that is sometimes required to arrive at a positive diagnosis can be appreciated only by those who have interested themselves in the work.

What can we hope to accomplish by this labor? We can gradually increase not only the number of operable cases, but also the number of permanent cures of uterine cancer. The technique of hysterectomy, both abdominal and vaginal, has

been brought to such a stage of perfection that it would be difficult to improve upon it, and still the statistics of hysterectomy for cancer are lamentable as regards permanent cures.

Jacobs of Brussels, a most skilled operator, reported three years ago 70 cases of uterine cancer in which he had removed the uterus; only 3 were alive three years after the operation. Thorn of Magdeburg, recently reported that after five years less than thirty per cent. of the operated cases were alive. This is due to the fact, he says, that seventy per cent. of all uterine cancers are inoperable at time of first examination; and of the remaining thirty per cent. there are many in which the disease has extended beyond the uterus. These facts reveal the trouble not to be with the operation, but with the time of operating. Winter, in Berlin, has for several years been urging the profession to make early diagnosis with aid of microscope, and his work in this direction is bearing fruit, in that more women every year are coming early for treatment. In 47 cases Winter pursued the methods of the doctors in their treatment of this disease. In about fifty per cent. vaginal examinations were made immediately. In 6 cases where such examinations were made the doctors treated with caustics and douches. In 15 cases, in spite of pelvic symptoms, such as hemorrhage, discharge, etc., no examinations were made, but were treated symptomatically, until the patient made a change in doctors. Generally the doctor reassured the patient because the discharge had no odor, forgetting that when the discharge is offensive the case is generally hopeless. Winter declares uterine cancer is a local disease, is curable in every case if operated soon enough. In a similar vein Fritsch remarks that if we cure 15 uterine cancers definitely, we would have cured the other 85 just as definitely had they come for treatment as early as the 15. I will not quote statistics of American operators, but will say the percentage of early cases of cancer is larger in Germany than here. The cause for this is to be found solely in the fact that there the microscope is being continually employed for the examination of uterine scrapings, and often an ordinary case of endometritis turns out to be the beginning of malignant ulceration. This, indeed, is tedious work, but we

must remember upon our diagnosis a human life depends. Malignant disease must by the scrapings be diagnosed from

First: Endometritis, glandular or interstitial—this, with practice, is usually easy.

Second: Neurotic myomata—the presence of muscular fibers aids in the diagnosis.

Third: Malignant degeneration of long-standing polypi is not uncommon.

Fourth: Placenta retenta.

Here the question arises whether we have placental tissue or the carcinoma syncytiale of Kossman.

The most exhaustive paper on this subject is that read by Gessner of Berlin before the Berlin Obstetric Society, in November, 1896. His work was done at university clinic in Berlin, from 1890 to 1896. Fifty-eight hysterectomies were performed an account of malignant disease of the corpus uteri. In 11 cases of carcinoma and 3 cases of sarcoma the tumor was felt. In 3 cases polypi, which were removed, were found to be sarcomatous. In the remaining 41 cases the diagnosis was made solely from the microscopic examinations of the uterine scrapings.

Case I.—Mrs. S., aged forty-three, was treated for pneumonia. During her convalescence she remarked she had womb trouble, that her menses were profuse, and was having a bloody discharge most of the time. One year after I was called to see her for a continuous uterine hemorrhage. When my finger entered the vagina I first thought that it contained a large afterbirth, but soon found it was fixed and very friable, handfuls of it coming away with no trouble by using the vaginal speculum. The growth resembled a cauliflower. Patient died in three months.

Case II.—Mrs. N. came in the office Monday morning; said she had had womb trouble for three years, and been under the care of two physicians during that time. The last had been treating her locally for the past year, the doctor deciding she did not know what the trouble was. Was unable to have stool without active physics, and then movement was very painful. Upon examination found tumor size of child's head almost completely filling pelvic cavity. The knowledge of the

character of the trouble was a great and painful surprise. Lived three months.

Case III.—Mrs. M., aged forty-four, came to me for dysuria. Didn't know she ever had any womb trouble. Had noticed menses lasted longer, sort of dribbling for a week after regular menses. Examination revealed active ulceration of neck of uterus, scrapings from which revealed typical epithelioma of six or eight months' growth that started in laceration of cervix. A vaginal hysterectomy was performed skillfully. Six months after, there being no recurrence, a badly torn perineum was repaired. The patient remains well, fourteen months having elapsed since womb and appendages were removed. This patient took as. 6 x previous to operation; sulphur and lachesis afterward. I believe the indicated homeopathic remedy before and after treatment is as important as the operation.

The writer has prolonged life in non-operable cases with the sulph. of zinc paste, the local use of as. 2x; also the acetic-acid treatment locally and internally, but I have great faith in the careful selection of the indicated remedy to correct the misapplied cell life of the body. Such remedies as sulphur, sanguinaria, lachesis, lycopodium, phytolacca, and conium, or any remedy indicated.

In non-operable cases Ethridge has lately brought to notice a new substance, discovered by some German scientist, called carbide of calcium. The method of use is as follows: He says, "After determining that I have a carcinoma uteri, the neurotic tissue is thoroughly removed by curetting under anæsthesia, till firm tissue is reached. Hemorrhage from arterial twigs is checked by the Paquillin cautery; free irrigation with very hot water is then used to check the oozing if necessary. It is desirable to have the seat of operation as dry as possible before using the carbide. Into the cavity, which extends to a greater or less extent into the body of the uterus, a piece of carbide about the size of the last phalanx of the thumb is placed. At once acetylene gas is evolved, which quickly fills the uterine cavity with a froth like soap bubbles. The cavity is at once packed firmly with iodoform gauze. The vagina is packed full of same, down to the ostium. The patient is then

put to bed for three days, when the gauze and the carbide remains are removed and a new piece is used. The carbide remains are nothing but a grayish clay, covering the cavity of the body of the uterus. It can be sponged and irrigated away in a few minutes, dried by sponging, and then prepared for another application of carbide. After a series of such applications, the ragged, neurotic-faced ulcer is converted into a simple clean ulcer. It presents a base covered, to all appearances, with pinkish-red granulations destitute of the gray color which characterized its former appearance. After a few treatments the edges of the cavity begin to draw in and the area of the crater is diminished. Its appearance impresses one that it has taken on a healthy character. Persistence in its use is followed by progressive contraction, till finally the cavity is entirely obliterated. There is a puckering of the vault of the vagina around the small uterine os that remains—the whole field being covered by healthy pink mucous membrane. This is the best treatment with which I am cognizant for carcinoma of the body of the uterus, and will oftentimes cure if the case has not progressed too far. The early diagnosis, followed by vaginal hysterectomy, the operation preceded and followed by the indicated homeopathic remedy, is the ideal and successful way to treat uterine cancer. I believe the profession must be educated to the early diagnosis of uterine cancer just as they have been educated to the early diagnosis of appendicitis and ectopic gestation in order to reduce the fearful mortality of this dread disease.



PARTURITION: FIRST AND SECOND STAGES.

BY W. E. GEORGE, M. D.

So voluminous are the productions of eminent authors, and so fully are theory and practice exploited by contributors to our various medical journals, that it is well-nigh impossible to say even a few words without reiterating some well-known axiom, or giving expression to ideas which have grown so familiar to all as to have become trite. And yet no truth loses any of its essence by frequent repetition, and all of us must needs be reminded again and yet again of even well-known facts, or we lose something of the keen interest which a new idea excites, and fall into carelessness or apathy.

It is neither my hope nor purpose to adduce any thought or method hitherto unknown, but rather to bring to mind a few points of minor detail, which may serve as nuclei for the development of a more acceptable system of practice in the lying-in room. In attempting to solve the great problems that so frequently confront us, we oftentimes fail to remember the many small details which give aid and comfort to our parturient patients. No one person can, by practical experience alone, in a lifetime, acquire all the knowledge necessary to meet the urgent emergencies which are liable to arise at any time during childbirth. The science and art of obstetrics as they to-day exist are the result of the combined experience of physicians during the past two thousand years; and not experience alone, but a thorough theoretical knowledge, is indispensable to the obstetrician of our time.

Dangers may be averted, sufferings mitigated or prevented, and lives saved by a timely diagnosis of fetal malposition or maternal abnormality. It thus becomes our duty to keep abreast of the times, to familiarize ourselves with new discoveries in the art of healing, and to study the needs of our cases individually, in order that no good thing may be withheld from those who at once intrust two lives into our hands. It is not enough that we do our best for our patient, but the duty is laid upon us to be sure that our best is as good as anybody's best.

Each succeeding case is a law unto itself, must be studied singly, and the treatment individualized. But there are some points applicable to all, or at least many, cases, and it is of these that I shall speak briefly, leaving out the very unusual and mentioning only those which are so ordinary as to be sometimes overlooked.

Everything likely to be required should be gotten in readiness if the physician be called in time. Among the necessities I will mention the Kelly pad, fountain syringe, absorbent cotton, chloroform, ergot, flexible catheter, hypodermic syringe, brandy, ice, ligature for umbilical cord, obstetrical forceps, needles and needle holder, chromacized catgut (or silk, if preferred, for perineal repair), abundance of sterilized hot and cold water, and towels.

Upon the advent of first pains a rectal enema should be given and the bladder kept empty during labor by using a catheter if the urine is not passed freely. It is better not to take the patient's word that the bowels are fully evacuated, but a digital examination should be made in order to make sure on this point. The presentation should be accurately determined as early as is possible, and if the head is found presenting, the patient should be so informed and her anxiety thus allayed. When the fetal movements are inappreciable, the phonendoscope will usually reveal the heart sounds, and this alone may bring assurance of a living child. Length of time or difficulty of previous labors affords no reliable criterion by which to predict results in any given case. Patients should be advised to sit up during the first stage, and if, at this time, dilatation is slow and the cervix rigid and unyielding, the hot vaginal douche is effectual in stimulating uterine contractions and relieving tension. With the patient in the dorsal position, on the Kelly pad, the douche bag hung not more than two feet higher than the body, a vaginal nozzle with a single large opening may be used, or the hard-rubber tip removed entirely and the syringe tubing inserted in such a manner as to throw a big slow, lazy stream, directly against the os, and the water, at a temperature of 105° to 108° allowed to run for an hour or more if necessary. This will not only facilitate dilation, but will in some measure mitigate the severity of the early pains.

The douche should not be used during the second stage, as at this time all the natural lubricant supplied by the vaginal muciparous glands is needed to aid in expulsion. As soon as full cervical dilatation is secured, the membranes should be ruptured, as after this time the presence of amniotic fluid retards advance. If the head presses too firmly upon the pubic bone, the knee-chest position during a few pains may effect a change of axis and a correspondingly satisfactory descent. If too far back and pounding against the rectum, the dorsal position is best, and rarely the latero-prone position is preferable. Each case must be individualized and its needs studied, but in my experience the dorsal position is usually most convenient at the moment of delivery. The patient's preferences should be regarded, if not actually detrimental to a safe conduct of the child into the world. During the severe pains characterizing the second stage, many women are grateful for massage or pressure applied to the back and loins. Indeed, the attendant's hands may be better thus employed, than in making too-frequent vaginal incursions, unless absolutely needed there. Towards the end of the second stage, most women use the greatest possible effort in straining down continually and energetically, and unless restrained by the soothing influence of chloroform or the admonitions of the attendant, vaginal laceration is liable to occur.

It then becomes the duty of the physician to retard by both manual interference and warning words these violent efforts toward forcible expulsion. It may be well to push the chloroform to almost complete anæsthesia in order to control these spasmodic efforts, which, although properly entirely voluntary, may pass quite beyond control of the patient. Some writers assert the possibility of affecting delivery "between pains," and in a small minority of cases this is quite practicable, but as a rule the final expulsive pains are so incessant as to make such delivery impossible.

In giving support to the perineum, care must be taken to avoid injury to the perineal body (now stretched to a thin membrane) by too vigorous direct interference. Olshausen's method of applying support to the presenting part rather than to the perineum will usually give good results, and in no case

should the fingers of the accoucheur be inserted between the perineum and the presenting part, at the very last. If pressure anteriorly is desirable, it is better accomplished by one or two fingers in the rectum, and if in spite of all efforts a central tear seems unavoidable, bilateral episiotomy with angular scissors, will give additional space, at the vulvar outlet, rendering subsequent repair easier and more perfect in its results.

As soon as the head is expelled, the face should be quickly wiped and the mouth cleared of mucus. If the cord is coiled around the neck great care should be exercised in its removal, as it may break short off and jeopardize the life of the child. In delivering the shoulders, perineal rupture may occur, even if the head has safely passed without such accident.

Danger of laceration is usually considered at an end when the head is born, but no little skill is oftentimes required to deliver the shoulders properly. After the child is born, and respiration well established, it is unnecessary to wait until pulsation in the cord has ceased before tying, but if breathing is feeble and immediate post-partum hemorrhage absent, it is better to wait several minutes before the maternal blood supply is withdrawn. It is my practice to tie the cord in two places, sever with scissors between the ligatures, and afterwards ligate the stump in a second place, to avoid possibility of bleeding. A flat, narrow, linen braid is preferable to thread for ligating the cord.

In ordinary cases of confinement, where forceps are not required, it is unnecessary to expose any part of the patient's person until after the child is born. Delicacy, gentleness, and tact are appreciated at this time as at no other; and the physician who extends all needed aid, without indelicacy, and who gives personal attention to the minutest detail, is the one who will be called next year—or possibly the year after.

A CASE OF MULTIPLE SMALL UTERINE MYOMATA AND PELVIC PERITONITIS; THE PATIENT BED-RIDDEN FOR SEVEN YEARS; RETRO-PERITONEAL HYSTERECTOMY; RECOVERY AND RESTORATION TO HEALTH.

BY FRANK H. SHAW, M. R. C. S., ENG.,

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EDWIN A. NEATBY, M. D.,

Editor of the Homeopathic Review.

There is chronicled in the immediately following paragraphs, in more detail than is usual, the report of a prolonged illness of considerable severity. It is the history of no dilettante invalid, who "enjoyed" bad health, but of an active and high-minded woman, leading a busy, unselfish life, who was suddenly stricken down by an accident, followed by a train of suffering lasting nearly twenty years. These sufferings were not chiefly of a subjective nature, but were of a measurable or demonstrable kind. The character of the case seems to us to justify an extended narration of facts such as we have given, as does also the almost dramatic interest of the sequel.

We have adopted as far as possible the account of the patient and her attendants for the narrative of the earlier years.

X. Y. Z., aged forty-two. Patient had good health until 1882, and was leading an active life, helping her father in his parish up to the time of her accident.

During the years which preceded the accident patient had always a great loss at her periods, which lasted from seven to eleven days, with never more than a fortnight between the end of one flow and the beginning of the next, but there was no severe pain.

On September 26, 1882, she was thrown out of a carriage (in consequence of the wheel breaking) against the post of a gate and had concussion of the brain and fracture of the acromion process. But she suffered most from a violent pain up the left side of the abdomen for which no cause could be found. This accident took place on the fourth or fifth day of

a period, which increased very much after it, with "flooding" for ten days.

After this date she began to have attacks of faintness and abdominal pain on the left side whenever the flow began, accompanied by "flooding" and excessive pain when overdone with all her work, for she led a busy life.

In 1885 she moved house, to a very cold and damp place. The work entailed by the move and playing the harmonium at church increased the pain very considerably, and in the autumn of 1888 diarrhea set in; at first it was only present during menstruation, when it was occasionally as frequent as forty times in twenty-four hours, but she had several chills, and then it was more or less always present, and by the spring of 1890 it was constant at all times with much pain.

The abdominal pain on the left side was now much increased, and was present at all times, and any exertion brought on uterine hemorrhage at any time. Kneeling in church appeared to cause diarrhea. Her breasts became very swelled and so tender to the pressure of clothes that she found even loose dresses almost more than she could bear.

In the early spring of 1890, pain began on the right side of the abdomen. The patient was then under the care of the late Dr. Shaw, who gave her china, which checked the diarrhea to a certain extent. By May, 1890, the pain was so much increased that she could not sit upright.

Dr. Shaw ordered her to lie down a good deal of the day, and at the end of five months allowed her to walk up and down stairs and a little out of doors.

The pain now seemed to begin to increase rapidly on the right side and the diarrhea was still so constant that by the last week of January, 1891, she had to again give up as she could not sit or stand.

In February, 1891, the diarrhea ceased and constipation began and no relief could be obtained without enemata.

February 25.—In consultation with a London physician it was decided that the patient must completely lie down and use a spinal carriage for outdoor exercise and not walk up or down stairs. Of the diagnosis at this consultation we cannot speak with certainty, but it is believed that the left ovary was

the supposed seat of the pain, due to inflammatory mischief.

In the winter patient caught a severe chill, and diarrhea again set in. She continued, however, to walk about the house until she fainted several times from the pain.

At a further consultation, a year later (February, 1892), it was said that there was no increased trouble with the left ovary, but that the right one was now affected and the bowels were in a much worse condition.

In May, 1892, there was a further consultation with two London specialists, when patient had an anæsthetic.

The uterus was found to be retroflexed, and an attempt was made to replace it by the sound, but without success, owing to its being fixed in a mass of inflammatory material. The examination was followed by a very fetid discharge, and menstruation set in too soon, accompanied by severe diarrhea.

In September, an overzealous nurse was anxious to make the patient walk, but the efforts to do so made the pain so bad that she again began to faint when she got on her feet. About this time she had obstinate constipation and jaundice.

The periods had become a little irregular, and after a slight flow the second week in February that year (1893), there was no return of period for eight months, until the second week of October. Headaches were very violent all this time. She was subject always to headache, which seemed to center itself in the place where the blow had been. At times there was much photophobia.

During the seven years from 1893 to 1900 there was never any diarrhea, and she only once had a motion without enemata. She began to retain the soap and water and even other forms of enema, and so glycerin was ordered.

Abdominal and pelvic pain was now always present, but became more acute four days before the periods began. After October, 1893, they began regular, generally two days less than the month.

In 1894 the breasts felt very enlarged and were tender, but there was no appearance suggesting a new growth.

In March, 1896, the patient had an attack of "low fever," with sore throat, which was found to be due to a bad state of the drains.

In the spring and summer of 1897 she was much troubled with a form of eczema on her fingers accompanied by a good deal of discharge which prevented needlework and writing. This she became liable to for some time and the irritation was a great worry to her.

In the summer of 1897 she began to suffer from nettlerash, which was present on and off "in her face, mouth, and throat" for about a year and a half.

In November, 1897, she had a feverish attack which seemed like influenza and left her weak. On February 5, 1898, real influenza symptoms set in. She became very feverish and for six weeks her temperature did not come down to her usual normal (97.4).

On February 8, at 8 p. m., it was 103°, and that night there was a recurrence of dark fetid discharge such as she had had in May, 1892. She was prostrate with the pain and for some days was only semi-conscious. After this time the pain was permanently worse and any chill seemed to produce the discharge, which was always accompanied by greater pain than even the periods. She had subsequently four more attacks of influenza, but none so bad.

In September, 1898, her period came on twice in a fortnight and then ceased until the first week in December. Her headaches were very terrible during this time and her bowels were the greatest difficulty.

After December, 1898, the period was never again irregular.

Patient was never weighed after 1894, when she was 7 st. 1 lb., but she lost a great deal of weight after that. Her height is about 5 ft. 11 ins. Food was always a difficulty, as she suffered much from indigestion and from constant ulcers in her mouth. At period times and when her headache was bad she ate very little indeed, but directly there was any lessening of the pain she always tried hard to eat.

On March 17th, 1900, we had the opportunity of seeing the patient together, eliciting the main facts already stated and ascertaining her then present condition. Before us was the woman who had been on her back in bed seven years, using her hands, but scarcely raising her head. She was long, dark-and-dirty-complexioned, and emaciated to a degree usually only

seen near the end of a long wasting illness or from death by starvation, as in cancer of the stomach. Almost no trace of the calf muscles was left, and between the bones of leg the fingers could almost meet at the inter-osseous membrane. The heart's action was unduly rapid for a recumbent patient—88 per minute—and the sounds were feeble but clear and the apex beat internal to the nipple line. The abdomen was somewhat tympanitic and in comparison with the bony body it seemed considerably distended. The knee reflexes were normal. For the examination of the pelvis anæsthesia was induced by A. C. E. There was a considerable amount of leucorrhœa, the uterus was retroverted and its surface irregular from the presence of two firm nodules, about the size of a hazel nut, apparently fibro-myomata. The mobility of the uterus was limited but not by any means absolute. No effort was made to restore it with the sound, though this instrument was used to measure the cavity, which was found to be three inches in length. At each side of the uterus the site of the broad ligament was occupied by thickened inelastic tissue. No large tumor and no evidences of malignancy were found. Our consultation resolved itself into a discussion of the pros and cons of operative treatment of a radical nature—that is, of coeliotomy, followed by removal of the appendages alone or of the uterus also. Against operation were the following considerations:

(1) The weak state of the patient. Could we advise her that she had strength to undergo a prolonged abdominal operation with a reasonable probability of pulling through? Did we think that if she had strength to go through the operation she had enough recuperative power to enable her to regain her health sufficiently to get about?

(2) Associated with the former—the ridiculously small amount of food taken by the patient. Before coming to a final decision we obtained a definite list of her usual amount of food, but this has unfortunately been lost. Suffice it to say that it was alarmingly small.

(3) The probable difficulty of operation on account of adhesions.

(4) Great and trying sickness after previous anæsthetics.

(5) Lastly and chiefly, the ascertained great deficiency and the excretion of urea. It was found that only about .64 per cent. of urea was being excreted.

In favor of operation, and dealing with some of the objections already alluded to, were the following points:

(1) The long period in bed and the previous pelvic peritonitis, with a present normal or subnormal temperature. Lying in bed would be much less irksome to her than to most patients. It is a matter of knowledge and a fact impressed upon us by experience, that a peritoneum damaged by chronic inflammation is more tolerant of manipulation than is a healthy peritoneum.

(2) Thin patients bear operations better than stout, flabby ones.

(3) Bearing on ultimate recovery was the fact that no organic disease apart from the pelvis existed.

(4) The existence of a definite pelvic lesion enough to account directly for most of the objective signs and for the persistent pain and indirectly for the other subjective symptoms.

(5) The bed-ridden and suffering condition of the patient cried aloud for pity and relief of some sort.

(6) Her brightness and braveness, her willingness to accept risk, and her strong determination to get well were also favorable elements not to be ignored.

We decided to advise the patient to have the offending organ, organs, or structures in the pelvis removed by operation. While not denying or minimizing the risk, we encouraged her to believe that she had strength to bear the shock of the operation and to recover sufficiently to get about again.

It may be wondered whether we were wise in advising a major abdominal operation in a debilitated subject who was only passing about 100 grains of urea per diem. After giving due weight to this fact, our opinion was that the extreme emaciation of the patient and the unreasonably small amount of food being taken would account for the deficiency in urea and that no renal disease or real inadequacy existed.

She promptly, cheerfully, and definitely accepted our advice and left us a free hand as to the nature of the operative procedure.

The readiness with which the patient's friends acceded to our suggestions in the way of preparing the rooms, overhauling the drains, etc., greatly facilitated matters and deserves and has our praise and our thanks. Everything possible was done to help the patient and ourselves and to contribute to the success of the undertaking.

On April 3, 1900, the patient was anæsthetized by gas and ether, by Lestock Reid, and on the score of the anæsthesia we had not an instant's anxious thought.

The abdomen was opened and the pelvis examined. The uterus was found to be tethered backwards, the body was nodular and enlarged. Several small myomata were noticed; the broad ligaments were contracted, thickened, and crumpled by old inflammation, the fallopian tubes were closed, the ovaries glued to the tubes and mesometrium, and the cæcum, small intestine, and sigmoid adherent to the pelvic viscera. We were of opinion that the fullest measure of relief would be obtained by removing both uterus and appendages—the latter at least on one side. After tying off the upper part of the broad ligaments on each side the usual transverse incisions across the back of the lower part of the body of the uterus were made from ligament to ligament and similarly in front above the bladder, and the peritoneum (especially in front with the bladder) was peeled down. The uterine arteries were then found in the mesometrium on each side close to the uterus; they were secured with silk ligatures and the uterus was then cut away by a somewhat wedge-shaped incision. The stump of the uterus was then stitched together and the peritoneal flaps united over the stump with a continuous silk suture. The operation was thus practically bloodless. The right ovary was not removed. The abdominal wound was closed in three tiers.

There was a certain amount of vomiting after the operation and the passage of a good deal of mucus by the bowel. Feeding was a little difficult, but the difficulties were overcome. Even the first night the sleep totaled two hours, in short doses of five to fifteen minutes. Nutrient injections were begun eight hours after the end of the operation, and milk in teaspoonful doses after sixteen hours more. The bowels acted on the third day. There was never any considerable abdominal

distention. In a week the patient was taking more food than for many months before the operation. On the eighth day the sutures were removed and primary union had occurred. Progress was uninterrupted after this.

Her height in November, 1900, was 8 st. 8 lbs., and she comes downstairs for all her meals and takes her food very well indeed. Her whole appearance and condition is changed for the better. The skin before operation was most unhealthy, probably from absorption of some toxins due to the offensive leucorrhœa; now it is splendidly healthy. She can walk a fair distance and enjoy life generally as she has not done for years.

Pathology.—The precise sequence of events in the evolution of this case will never be known with certainty. Whether or not the myomata were present in the year 1882, when the patient was only twenty-four years of age, is unknown. It is an unusually early age for symptoms to lead to investigations which reveal the presence of myoma, but as we have known myomata to attain a very large size by the age of twenty-eight, it is at least possible that myomata may begin as early as twenty-three or twenty-four. Indeed, some such are recorded. In this case, the hemorrhage so freely present at the menstrual epochs might be explained on this supposition. On the other hand, myomata present at the age of twenty-four would probably have attained a much larger size by forty-two than were those found at the operation. It is perhaps more probable that the violence of the injury, which certainly had some effect on the pelvic organs, as shown by the "flooding," ruptured some vessel or vessels (congested by the menstrual hyperæmia) in the broad ligament, and caused a hematocele or an intraligamentous hematoma. This would induce peritonitis, to be followed by the usual damage to the pelvic viscera. The coincidence of pelvic peritonitis and of myomata may have been casual or the latter may have been in some obscure manner due to trophic changes induced by the former.

Remarks by Dr. Neatby.—From the time of the operation the patient was entirely under the care of Mr. Frank Shaw and two excellent nurses. It is to his assiduous watchfulness and skillful management that the satisfactory early convalescence is due. Later on they had also the more difficult task of lead-

ing back to life a patient who for seven years had only existed. Here ample scope was given for a wise combination of gentleness and firmness, and under guidance of this kind the patient nobly and splendidly seconded their efforts, with results of the most cheering description. By the aid of judicious feeding, the use of massage, graduated exercises, etc., power slowly came back to the atrophied muscles. She stood and then walked, indoors and then in the garden, first at her home and then in the country. I shall not soon forget the day when, some months after operation, this patient walked across the lawn to receive me when I called on her, and entertained me with an account of her travels and with an inspection of her amateur photographs—she who had so long been confined to the narrow limits of a small bedroom and a smaller bed.



MENTAL IMPRESSIONS THE CAUSE OF MONSTROSITIES.

BY C. R. CROSBY, M. D.

It is yet an open question among the medical profession whether mental impressions have any influence on the child in utero. While some claim to be able to find ample cause for non-development in physical influences, a large and respectable class hold to the mental as the supreme influence in producing monstrosities. It must be admitted that of necessity there is much obscurity connected with the matter in question, yet results testify in no uncertain way in favor of the predominance of the mental. Besides it is unwise to throw people off their guard, and allow unnecessary exposure simply because it is rather an antiquated idea. The following cases illustrate the matter fully as well as any theory can possibly do.

Case I.—Mrs. O. C., aged twenty-nine, mother of four children, all well-developed and healthy, had just become pregnant, when a most brutal murder was committed in an adjoining county. A husband killed his wife with an axe, by striking her a blow with the bit, in the back, inflicting a deep and fatal wound. The whole country was aroused by such a brutal act, and it became the theme of conversation everywhere. Al-

though this woman did not see the victim, yet for weeks, in imagination, she could see the gaping wound, and no exercise of will could drive it from her mind. When the child, a girl, was born, it disclosed a wound just as she had pictured, in the back, from which oozed a substance resembling blood. The child maintained a feeble existence for two days and died. This woman had several children subsequently, all healthy and well formed.

Case II.—Mrs. B. aged twenty-six, mother of two children, both very healthy, sent for me in great haste, as she feared a miscarriage. As distance and bad roads made me a little late in arriving, I found a six-months' fetus had passed, of male sex, and a hideous monstrosity. The mouth was on the top of the head, no eyes, no neck, but both arms coming out at the sides of the head. The abdomen was a simple mass, more like a tumefaction than anything else. I questioned the woman closely, to learn, if possible, if she had had any mental impression of a disagreeable character during the term. She assured me she had had none, or at least was unable to recall any. After caring for her, I told her I was sure something of the kind had occurred, and that it would come to her mind later. A few days after she told this incident: soon after discovering that she was pregnant she met a man she was acquainted with, but had not met for some time, whose head and face was terribly disfigured by a tumefaction of a cancerous nature. This had grown much worse since she had met him, and its appearance effected her powerfully. She tried to get away from him as soon as possible, but he, being pleased to meet her, and not apprehending harm, followed her for further conversation. This unpleasant impression remained for a long time, long enough to evidently work the mischief.

There are doubtless other causes and conditions which combine to help produce these results. Among these are nervousness, low vitality, and, consequent, less resistance and increased susceptibility to impressions, still the fundamental cause must lie in the mental shock. This must be conceded, when we take into account other results from mental impressions, as, for instance, fainting at the sight of blood, or from some startling news, sleepless from anxiety, and the like.

WHOOPING-COUGH.*

BY J. ROBERSON DAY, M. D. LOND.,

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Homeopathy can do so much for whooping-cough that it is always a pleasure to treat these cases, more especially if the parents of the children are making their first acquaintance with homeopathy.

It may be called one of the essential diseases of childhood. Essential, because very few if any children escape it; in this respect it resembles measles, with which it is very intimately connected, the one disease often following the other for some inscrutable reason. When we are told that a child has never had whooping-cough, it is probably the case that the disease was so mild as to be overlooked. I remember in my own case, when a boy of about fourteen, having whooping-cough when it was prevailing in the family, but so slightly that I can only recall one suffocating attack in the night, which woke me up, and I rushed to the open window for air. I mention this because such a slight attack might be entirely overlooked by parents, and it also explains the subtle way in which the disease may spread, mild cases of this kind being allowed to mix with the healthy. Another reason which makes it so difficult to prevent spreading is that the early symptoms are precisely like those of an ordinary cold; it is only when the cough begins to assume its peculiar character that our suspicions are confirmed, and then often isolation is too late to stop the spread of the disease. It is thus that we occasionally get an epidemic in our children's ward, despite all our care. In the out-patient department we see plenty of whooping-cough in the course of the year, and, as the subjoined cases show, the treatment is attended with very considerable success.

In healthy children it can scarcely be regarded as a serious disease, but when it attacks weakly and very young children it is very serious, and if complicated by bronchitis and pneumonia may end fatally. Some amount of bronchitis is almost

* *Monthly Homeopathic Review.*

invariably present, and the viscid tenacious mucus is quite characteristic.

As the catarrhal stage passes into the spasmodic, there is no longer any doubt as to its nature, and a regularly recurring cough (even without the whoop), worse at night and followed by vomiting and discharge of stringy mucus from the mouth, is quite unmistakable.

In severe cases, when the spasmodic stage is fully declared, the appearance of the child is remarkable. The face is bloated and eyelids puffy; there may be sub-conjunctival hemorrhage, which has alarmed the mother and proved the determining cause of the visit. Epistaxis is common, and if the frænum linguæ be examined, a small ulcer may be observed upon it. The stethoscope will reveal coarse rhonchi.

As soon as treatment is commenced, amelioration of symptoms is marked and rapid, the number of spasmodic coughs is lessened and the severity of each attack is also less, sleep is restored as the nightly attacks of coughing are reduced.

The complications are chiefly bronchitis, pneumonia, and hemorrhages from the lungs, nose, or into the orbits. Convulsions are most serious, but will often yield to appropriate treatment. Some years ago I recorded in this journal a successful case of unusual severity (vide *Monthly Hom. Review*, 1890, p. 396).

The treatment is most satisfactory, and I regard drosera as our sheet-anchor. This is a medicine which requires to be given high (I prefer the 30th cent. dilution). When used in the mother tincture it is useless and this explains why our allopathic friends fail to get any benefit from it. As each case requires to be treated on its own merits, I have selected some typical and interesting ones from my hospital case-books just as they stand.

Passiflora incarnata is of great value to relieve the night attacks; it lessens their violence and induces sleep.

I have for some time been in the habit of prescribing a liniment composed of ol. succini 3 ij, ol. caryophylli 3 ij, ol. olivæ 3 iv. It is of great use and should be thoroughly rubbed into the chest, and especially down the spine.

Many other remedies are required from time to time in the

course of the disease as will be seen in the selected cases, as indicated at the time.

Diet is very important in this as in other diseases. Food should be light, easy of digestion, and preferably given in small quantities at frequent intervals. In severe attacks, vomiting may be a most serious complication, and if a child is allowed large meals, for which he is often quite ready, the mischief is likely to be kept up. The well-known connection between the stomach and the cough is always emphasized here.

Fresh air is important, but sudden changes from warm to cold air are likely to bring on the cough. In fine weather these children may be allowed out of doors as much as possible, always taking care to keep them away from others.

There are many adjuvants to treatment, of some of which we may occasionally avail ourselves, but generally, with our well-selected remedies, they are not necessary, and they all are more or less objectionable to other members of the household from their unpleasant odor. A correspondent to the *British Medical Journal* of November 3, 1900, gives a list of remedies (alum, antipyrin, acetanilide, belladonna, bromides, cannabis indica, carbolic acid, chloral hydrate, creosote, lobelia, opium and its derivatives, phenacetin, quinine, etc.), which he owns is confusing to the novice, although advocated by some members of the old school. He then, by means of a circular addressed to various practitioners, ascertained that the drugs chiefly relied on are antipyrin, belladonna, bromides, carbolic acid, creosote, and opium, and occasionally chloral hydrate, quinine, butyl-chloral-hydrate, etc. The only remedy enthusiastically praised was creosote by inhalation.

A comparison of the two methods of treatment is instructive! The "homeopathic child" has much to be thankful for.

The following thirteen cases all recovered, and exhibit the varying forms of the disease with the treatment.

Case I.—Louisa P., æt. ten months. Whooping-cough and bronchitis.

July 5, 1900.—Breast fed. Whooping-cough for two weeks with bronchitis. Drosera 30 and ant. t. 3 alt. 2h. and amber oil lin. July 12.—Feverish. Acon. 3x 2hr. July 19.—Rep. August 2.—Rep. August 30.—Rep. Drosera.

Case II.—Clara D., æt. two years, five months. Whooping-cough and bronchitis; feverish.

July 9, 1900.—Measles two months ago. Had cough about two weeks; had epistaxis. Drosera 30, 2 hrs., amber oil lin. July 22.—Keeps food down, but still has epistaxis with cough, and is feverish; T. 102.2°. A good many bronchial râles, especially in front. Acon. 3x, drosera 30, mustard bath at night.

Case III.—Emma D., æt. four years, seven months. Whooping-cough and sub-conjunctival hemorrhage.

July 9, 1900.—Had cough two weeks. In right eye is sub-conjunctival ecchymosis from cough. Drosera 30. Amber oil lin. July 22.—Very much better. Rep.

Case IV.—George P., æt., four years. A small, thin child. January 4, 1900.—Whooping-cough. Drosera 30, two hrs. Amber oil lin. Passifl. ϕ mij 2 hrs. nocte. January 11.—very much better. Rep. January 18.—Only 2 coughs in 24 hours. Rep. Drosera ter. and Passifl. nocte. January 25.—Much better, only eight coughs since last visit. China, 1 x mv ter. Passifl. nocte. Took cold going home. February 19.—Very much better, only coughs about twice in twenty-four hours. Sulph. 3 gr. j ter.

Number of coughs in 24 hours:

	Day.	Night.	Total.		Day.	Night.	Total.
January 4	4	17	21	January 15	1	2	3
" 5	4	10	14	" 16	1	2	3
" 6	3	4	7	" 17	1	1	2
" 7	3	4	7	" 18	0	1	1
" 8	3	4	7	" 19	0	1	1
" 9	3	3	6	" 20	0	2	2
" 10	3	2	5	" 21	0	1	1
" 11	1	3	4	" 22	0	1	1
" 12	2	2	4	" 23	0	1	1
" 13	1	2	3	" 24	0	1	1
" 14	1	2	3	" 25	0	0	0

On January he caught cold, the day being inclement, a relapse took place, and the whooping-cough returned, but was finally cured on February 19.

Case V.—Ethel H., æt. six months. Relapse with east winds.

January 18, 1900.—Whooping-cough. Drosera 30 pil. j 2

hrs. *Passiflora* *mj* 2h. nocte. January 25.—Much better. February 1.—*Drosera* 30, *corallium* 3x gr. *j* alt. 2h. *Passifl.* \varnothing nocte. February 8.—Much better, scarcely coughs at all. February 15.—Much better. Rep. May 17.—Because of east winds, cough has returned.

Case VI.—Whooping-cough, second attack. Dorothy W., æt. three.

April 5, 1900.—Two years ago had whooping-cough. Seven days ago again began to whoop and cough. Present condition well developed, nil definite. Feverish at night. *Acon.* 3x ter. *Bell.* 3x 2h. nocte. April 26.—Whoops at night and vomits with it. *Drosera* 30 2hrs. *Passiflora* \varnothing *mij* 2 hrs. nocte. Amber oil lin. May 3.—Much better. Rep. May 17.—Night cough chiefly, *Hyoscy.* 3x.

Case VII.—Kitty P., æt. four years, three months. April 12, 1900.

For six weeks has had whooping-cough, and has been under allopathic treatment, which made no impression. *Drosera* 30 *mij* 3h. April 26.—No whoop now, only the irritating cough. Rep. May 17.—Rash of measles all over skin, fading. Nasal catarrh, tongue furred, temperature normal. *Pulsat.* 3x 3h.

Case VIII.—Rose P., æt. four years.

June 21, 1900.—Whooping-cough complicated by a fit lasting nine hours. *Drosera* 30 2hrs. *Bell.* 3x 2hrs. nocte. June 28.—Cough still bad. *Corall.* R. 30. *Bell.* 3x. alt. July 5.—No other fit. "Phlegm," which she is unable to get up. *Drosera* 30, ant. t. 3, alt. 2hrs. August 2.—Rep. August 16.—Rep. August 30.—Rep.

Case IX.—Emily E., æt. nine years.

June 25, 1900.—Has whooped for two weeks, vomits with the cough and is worse at night. *Drosera* 30, 3hrs. July 4.—Coughs still, and worse at night. Rep. *Drosera* and *Passiflora* nocte. July 22.—Ulcer on frenum, tongue furred, coughs up much ropy mucus, with pain in side from tugging of diaphragm. Ant. crud. 3 gr. *j.* 2hrs. *Passiflora* nocte.

Case X.—George H., æt. three years. Whooping-cough and bronchitis.

December 28, 1899.—Has previously had bronchitis and pneumonia. The bronchial râles are chiefly on left side.

Ipec. January 1.—Ant. t. 3. January 4.—Drosera 30, 2hrs. Passiflora φ nocte, amber oil lin., continued till February 1, when corallium 3x and drosera 30, alt. 2hrs. with passiflora nocte. February 8.—Much better; attacks are less severe, nose bled in one. March 8.—Still improving.

Case XI. Caroline F., æt. fourteen months.

January 25.—Whooping-cough for two weeks. Drosera 30 2hrs., passifl. φ mij nocte 2hrs. February 1.—Much better. February 8.—Much better; cough besides being less frequent is less severe. February 15.—Ever so much better, only small whoops at night, none in the day, plays about. Passifl. φ nocte only. March 1.—Sulph. 3. March 22.—Cough only at night, does not wake her. Hep. S. 3, gr. j ter die sum.

Case XII.—Margaret F., æt. five years. Treatment began early.

February 5, 1900.—Taken whooping-cough from sister, but has not whooped yet. Cough worse at night, drosera 30 3hrs. passifl. φ 3hrs. nocte. Amber oil lin. February 15.—Attacks besides being less frequent are less severe. Frenum linguæ ulcerated. March 1.—Much better. Sulph. 3, 3hrs. March 22.—Only coughs at night once or not at all. Hep. S. 3, nocte.

Case XIII.—Harriett B., æt. one year, seven months. Whooping-cough after empyema. December, 1899, came with empyema.

May 10.—Whooping-cough for three weeks. Drosera 30. Amber oil lin. May 21.—Much better, cough is only at night. June 11.—Much better. Rep.



Editorial.

THE CHRISTIAN SCIENTISTS.

Just now a bill is being introduced before the legislature of this State which, should it become a law, will regulate the practice of some of those arts and sciences (?) which in certain portions of various communities seems to replace the regu-

larly licensed practitioner of medicine. Practically, the provisions of this bill would require such sects as Christian Scientists and osteopaths to pass the regular Regents' medical examination; therefore they are in great evidence at Albany with many protests. The Christian Scientists deserve prominent consideration, because, as a sect, they are growing faster than any form of religion or school of medicine. Founded in 1866 by Mrs. Eddy, an alleged homeopathic physician, from a very humble beginning, it is said they now have a half-million professed followers, and perhaps as many more who do not openly declare allegiance. And it is further alleged by persons who have investigated that they are growing fifty per cent. each year, and have 370 churches in 350 of the principal cities of this country. As far as can be learned, this cult does not practice the healing art for charity; its representatives obtain good fees for their services. The passage of this or any bill hampering or impeding them in any way brings forth the outcry "Persecution"! The medical laws of this State are sufficiently liberal for the honest practice of medicine or any system of therapeutics that may be put forward, but those assuming the functions of physicians and surgeons should be made to give evidence as to their fitness by conforming to what, of course, is an arbitrary standard, the medical requirements of this State. That standard having been reached, the State does not interest itself in the school of medicine or the practice that the individual sees fit to employ, only insisting on certain reports which are for the common good. Again, the patients have no legal redress against any but licensed practitioners of medicine, therefore could not collect damages for malpractice from a Christian Scientist. The bill will probably not become a law; our lawmakers often, in their zeal to protect the constitutional rights of individuals, allow what they consider a lesser evil to remain, in the fear that its removal would engender greater ones. This error of conservatism bears fruit, until at last the people, awakened to a sense of duty by some disastrous result consequent upon these irregular practices, demand swift and sure legislation.

DR. T. ADDIS EMMET AND THE WOMAN'S HOSPITAL.

Forty-six years of continuous service to a hospital is in itself a unique tribute to any man. Thus, by his recent resignation, Dr. Emmet withdraws from a scene of action in which gynecology as a scientific speciality almost had its birthplace, and in which he has been foremost in its subsequent development. His conspicuous ability and unquestioned genius in certain directions made the Woman's Hospital prominent as an educational factor both at home and abroad. His prominent identification with this institution began with his assuming charge when the late Dr. Marion Sims made the trip abroad which was to contribute so much to confirm the estimate of greatness so reluctantly given by his co-workers in this country. During these long years of service Dr. Emmet has labored hard and earnestly to benefit womankind, to rescue her from herself, from those ills and accidents her portion because she is a woman. In those conditions so often following gestation and labor, the price of maternity, he was the true philosopher and the perfect embodiment of skill. It is through his work as a plastic surgeon that he is probably best known throughout the medical world, and in that special branch he stands unrivaled. During the long period of his connection with the Woman's Hospital thousands of physicians have heard his teaching and watched his work, and gladly and enthusiastically he imparted whatever of his marvelous skill they were able to acquire. His results were remarkable in repairing the injured parturient canal after labor. Physicians often doubted his ability to restore the parts anatomically and physiologically, as he claimed, after some of the more severe accidents with their sequelæ, such as prolapsus uteri. He however did the work, and he taught an army of physicians the principles of his practice, urging and impressing upon them the importance of scientific plastic surgery in gynecology, thereby adding to his own credit wherever his principles are practiced.

Current Comment.

G. F. Blacker, M. D.:

The prevention of *post-partum hemorrhage* is of even greater importance than its treatment, and it may with truth be said that the skill of an accoucheur can be estimated by the number of such cases that occur in his practice. During labor it is often good treatment to rupture the membranes, even before the cervix is fully dilated, in cases where we fear the occurrence of hemorrhage after delivery. During the second stage of labor care must be taken not to allow the uterus to become exhausted and to recognize as early as possible conditions likely to cause obstructed labor. When the uterus is in a condition of secondary inertia the mistake of delivering with forceps must be avoided.

It is, however, in the proper management of the third stage of labor that the secret of preventing post-partum hemorrhage lies. Too often it occurs as a sequel of hasty and premature attempts to express the placenta, with the result that a portion of the placenta or membranes is left in utero. A sufficient amount of time must be allowed to elapse to permit of proper separation of the placenta, and under ordinary circumstances no attempt should be made to express it until from twenty to thirty minutes after the completion of the second stage of labor. From the time the child is born until the placenta is expelled one hand should be kept continuously upon the uterus. The dorsal position has many advantages during the third stage of labor, but in cases where bleeding occurs the necessary manipulations are most readily carried out with the patient on her side.

At the end of the second stage the fundus of the contracted uterus is usually at the level of the umbilicus. Towards the end of the third stage it will be found to have ascended until it lies from one and a half to two inches above the umbilicus. This indicates that the placenta has been separated and expelled from the upper uterine segment into the lower uterine segment and that it is in a condition in which it can be easily expressed.

It is more particularly in cases where it is necessary to revive an asphyxiated child, or where the medical attendant's attention is directed away from the mother, that severe post-partum hemorrhage is likely to occur. It is impossible for a uterus to relax completely unperceived if it be watched with the hand during the whole of the third stage of labor. In any case where hemorrhage has occurred or where the uterus shows a tendency to again relax it must be carefully supervised until it is certain that contraction and retraction are complete and permanent.

When post-partum hemorrhage does occur the medical man must have a plan of treatment ready and be able to carry it out rapidly and efficiently. Personally, I do not consider that I am doing justice to my patient or to myself unless I have ready at hand the few appliances necessary to enable me to deal with such a complication should it arise.

The best method of treating a case of severe hemorrhage will depend upon whether the placenta is still in utero or not. The ordinary treatment may be outlined as follows: If the placenta be retained it must be at once expressed, or if this is found impossible removed by the hand. A hypodermic injection of ergotin, if ready, may be given and the uterus kneaded through the abdominal wall, while the nurse is ordered to prepare a hot douche.

There are several important details to be observed in employing this form of treatment. The water must be used in large quantities and at a temperature of not less than from 117° to 120° F. The uterine tube should be carried into the uterus up to the fundus and the whole of the inner surface of the organ irrigated by the fluid. This is rendered more easy and at the same time the hemorrhage may be to some extent checked if the uterus be drawn down to the vulva with a vulsellum. This method of drawing down the uterus is at times alone sufficient to arrest the bleeding, no doubt by the kinking and compression of the uterine arteries which it causes. Some antiseptic may be used in the water, but plain hot water will do perfectly well in an urgent case.

Bimanual compression of the uterus is the best method to employ when the hot douche is not immediately available or

where it fails to excite uterine contractions. The uterus seized by the hand on the abdomen is compressed against the anterior abdominal wall, the posterior surface of the symphysis pubis, and the other hand placed in the anterior vaginal fornix. The pressure should be exerted as far as possible upon the placental site; no great force is required and it can be continued for a considerable length of time, although at the cost of a good deal of fatigue on the part of the attendant. The chief objection to this method is the difficulty sometimes experienced in grasping the completely relaxed uterus between the two hands. Whether the fist or the extended hand be introduced into the vagina is a matter of indifference so long as the anterior and posterior walls of the uterus are kept firmly in contact.



L. Bentley, M. D.:

The chief danger to the mother when delivery occurs is, of course, the danger of *rupture of the perineum*. To prevent laceration, one author says: "Flex the chin strongly on the sternum"; another says: "Extend the forehead." One goes so far as to recommend applying the forceps with the pelvic curve looking backward, so as to have more force for the purpose of flexion. To my mind, we are too apt to follow great leaders without consideration. No one knows better than the operator himself what ought to be done. He should have no time to think what this or that author says. He is himself the power, and it should be "What does he say?" With his head cool, common sense will teach him far more than any book. I once asked a dentist, whom I knew to be an expert in extracting teeth, if he had any particular method in extracting any particular tooth. He answered to the effect that he did not know how he was going to extract a tooth till he had on the forceps. He then let it come the way it seemed to come easiest. The same method is applicable in the case in question. If traction be made in the pelvic axis, the forehead will sometimes seem to tend to come first. If so, favor it. Or, mayhap, the occiput may seem to have a tendency to come first. If so, favor it. The method I use to prevent rupture is to first bring the head well down on the perineum, then grasp

the forcep handles with the left hand, and with the right hand reach across the perineum with the thumb on one side and the fingers on the other, and press with the whole strength of my hand towards the median line. The perineum should be wiped dry, as also should the hand. In doing this the strain is greatly relieved on the median line and transferred to the outer portion of the perineum. Some authors now recommend the operation of "episiotomy," namely: cutting on either side some distance from the median line, and stitching after. The above method will, I think, suffice without the cutting, and the principle is the same.

In five years I have delivered eleven infants with face to the pubis. In my last case, on the first examination I found the occiput, already in the hollow of the sacrum, pointing very slightly to the left sacroiliac synchondrosis. The forceps were applied at once, and the head brought down slowly to the perineum. The progress of the face was arrested when the anterior fontanelle reached the pubic arch; then the occiput showed a tendency to pass over the perineum. To favor this the handles of the forceps were gently carried forward until they pointed directly upward (the woman in the dorsal position), when the occiput swept over the perineum with as much ease as is usual with the face in a like position. Under the conditions named, the occiput was delivered by flexion of the chin on the sternum; and having only the sub-occipito bregmatic diameter pass, namely—3.25 inches, while the forehead had reached the pubes, the occipito-frontal diameter would have had to pass (if the occiput was delivered first) a diameter of 4.50 inches. Ordinarily, in my experience, the actual delivery has occurred so quickly that it would be difficult to say positively how delivery was accomplished. It seems to me that with caution all occipito-posterior cases might be delivered in the described manner and delivered easily.

Professor Comstock says he saw two cases, in consultation, where it was impossible to start the occiput from the hollow of the sacrum. In my cases they have all required a sharp pull, but when the head reaches the perineum there is but little force required. In the case just described the occipito-frontal diameter of the fetal head was nearly six inches, which

is abnormally long, and the sub-occipito-bregmatic diameter was three and one-half inches.

♦ ♦

T. C. Ferguson, M. D.:

The successful use of the *hot douche in pelvic inflammation* depends, first, upon the degree of heat in which it is used. The water should have a temperature of 115 to 125 degrees, and next the length of time in which it is employed. If it is discontinued before the secondary effect is secured, the parts are left in a worse state than they were before the douche was begun. It should not be discontinued under fifteen or twenty minutes. The longer the operation the better.

The posture of the patient is of great importance, and I recommend Sim's position, in which the vagina is ballooned out and its folds are obliterated. This is rather inconvenient, but the better efficiency of the position amply repays for all extra trouble. The head of water is important, and often this is overdone. It should not be over five or six inches above the pelvis. This gives a slow, steady flow of the current without much force, but carries as much heat to the part as two or three times greater an amount of water. A fountain syringe for irrigation, with a double bag, a Y-piece, and connected to a common discharge pipe, is best. Each bag, however, should be regulated by a faucet, and the temperature can be increased or decreased at will.

♦ ♦

Arthur E. Barker, M. D.:

The following surgical axioms have come to be pretty generally held and acted on in the *operative treatment of cancer of the breast*, with great advantage to the patient: (1) An excision of the breast to be effectual must be early. (2) The overlying skin, subcutaneous fat, pectoral fascia, axillary fat and glands, with the entire breast, must be widely and deliberately removed. (3) During this dissection all division of carcinomatous tissue should be avoided, and, if inevitable, freshly sterilized instruments, etc., must be used. (4) As little direct handling of the parts to be removed as possible should take place. (5) Arrest of all immediate bleeding should be

accomplished preferably by forcipressure, and if not by ligature and subsequent oozing by elastic pressure and bandaging. Rest for the wound and the patient should be secured for at least two weeks. (6) All this extensive removal can be accomplished with but little risk to the patient in fairly early cases. (7) When the disease has infected the muscles palliation alone can be expected from surgical interference, and it is questionable whether very extensive operations involving risk from shock ought to be performed with only this end in view. Indeed, the apparently paradoxical rule (which for my own part I have followed of late) appears to be justified—viz., that the more localized the primary focus of carcinoma in the breast is the more wide-reaching should be the excision on the above lines. That is to say, there is in such cases a fair prospect of complete eradication of the disease by a wide-reaching operation, and therefore it is justifiable to run some risk of shock. The converse rule appears also to have much to recommend it—viz., that the more wide-reaching the disease the more clearly should the operator keep mere palliation in view, and by limiting his operation avoid the risk of extreme shock.

♦ ♦

C. S. Bacon, M. D.:

A very valuable adjuvant to the *treatment of breast infection* is the application of cold by means of the ice-bag. This not only has great influence in relieving the pain, but also modifies favorably the infective process. It can be applied satisfactorily only when the patient remains in bed. It is indeed desirable that the patient should always keep in bed for at least two or three days. The ice-bag is used in connection with the Y or circular bandage. The thick layer of cotton which is employed in connection with the roller bandage interferes with the action of the ice. The large-sized round bag is best. The ice should be broken quite fine, and the bag made to conform to the contour of the breast. If the infected lobe is on the outside, the bag is placed against the affected spot and supported by pillows or blankets. When the infected region is in the upper or inner side of the breast, the bag may be laid upon the chest.

Under this plan of treatment we shall find, in almost every

case, that the pain has largely disappeared in twenty-four hours, and at the end of from forty-eight to seventy-two hours that the local tenderness has disappeared, and the nipple is healed. The ice may now be removed and nursing resumed, the child being allowed to stay at the breast not more than four or five minutes. If nursing increases the pain it must of course be stopped for one or two days more.

♦ ♦

M. S. Marcy, M. D.:

During the past twenty years, in treating *scarlet fever*, I have noticed that children who inherit weak constitutions are much more liable to suffer from suppurative processes than are the robust, especially those who have inherited syphilis, tuberculosis, and children from aged fathers. In regard to the last-named class I have never read any statements on the subject and am somewhat curious to know the experience of others with this class.

♦ ♦

Henry Gibbons, Jr., M. D.:

Of my first 500 obstetrical cases, 4 of the mothers died, but since the last of these deaths I have 703 consecutive *cases of confinement* without a death, notwithstanding a number of cases with convulsions, placenta prævia, post-partum hemorrhage, adherent placenta, and among the earlier cases septic infection and peritonitis.

With ordinary care serious injury to the mother from forceps use is not likely to occur. I have never known a death to take place, nor anything more than laceration of the soft parts. In these days of aseptic methods, death should not occur, but the injury to the parts may lead to important disabilities. The perineum may be extensively lacerated even through the sphincter, which is more likely to occur in occipito-posterior positions, when rotation anteriorly has failed to take place. Nevertheless, when carefully managed, the forceps may be made efficient to prevent laceration. I have no worse results with them than without them, and often have no laceration at all. When serious rupture is threatened I find episiotomy, or rather division of the larger lips, a most satisfactory

procedure. It gives straight incised wounds, which are easily sutured, instead of jagged and uncertain tears, which often extend into the vagina, and are not easy to reach. It is possible for a fold of the bladder to be bruised against the symphysis pubis, and a slough and fistula to follow, although gynecologists assert that such an accident is much more apt to follow long delay in labor. Fistula is far more rare since the more frequent use of the forceps. I have never seen a case. But there is an injury that is not infrequently done by the instruments. It is laceration of the neck of the uterus by attempting to extract the head before full dilatation of the cervix. This matter of determining the dilatation of the cervix is deceptive. The examination should always be made during a pain: otherwise the cervix is often so flaccid as to leave the impression that it is completely dilated when it is far from being so. If the patient's strength is good and there are no other contraindications, the forceps should never be applied until dilatation is complete, especially if the head is high up.

There is another possible injury that may be readily overlooked. It is bruising of the tissues covering the inner surface of the pubic arch by the jamming of the head and forceps against it. This occurs when the head is still in the oblique diameter and pretty well up, so that the handles of the ordinary forceps cannot be depressed sufficiently to insure traction in the direction of the axis. The remedy is a very simple one; that is, to use an axis traction forceps. The books tell us that the injudicious use of the forceps may cause separation of the pubic bones at the symphysis, but I apprehend that this accident cannot occur except in those rare cases of great relaxation which prevent locomotion. I have had a few cases of the latter, but none in which the forceps were used. Indeed, the condition would be favorable to delivery without the forceps.

The danger to the child is far more serious than to the mother, as our statistics show. Minor injuries are not infrequent, and are of little importance: such as temporary facial paralysis from pressure of the forceps upon the facial nerve below the ear; abrasions and bruising of the face, neck, and scalp; injury to the eyelids, with following conjunctivitis; rupture of the vessels of the scalp, causing hematoma, etc. If the

forceps are not adjusted to the sides of the head in the occipito-mental diameter, but are applied obliquely, and much force is used in extracting, there may be very much distortion, with possible fracture of the bones, rupture of vessels in the brain, or laceration of the brain itself. Injuries not apparent at once may result in inflammation later. The skull is so constituted as to permit overlapping of its parietal and frontal bones and diminution of its bi-parietal diameter by a quarter or even half an inch without serious injury, but the pressure must be evenly applied and mainly laterally, and the process must proceed slowly.

This constitutes what is called molding. It produces the temporary dolicho-cephalous head, long and narrow, by shortening the bi-parietal and trachelo-bregmatic diameters and lengthening the occipito-frontal and occipito-mental diameters, which shortly after birth return to their normal dimensions. If labor be unduly hastened we fail to take advantage of this beneficent provision of nature. It is no doubt more scientific to apply the forceps in the occipito-mental diameter of the child, and this can always be done when the head has rotated to the conjugate diameter of the pelvis and often when it is yet in the oblique diameter; but in some cases the operation is difficult or impossible of accomplishment, and then one blade will apply itself in front of the ear and the other behind the ear on the opposite side. The point of this latter blade will frequently project down upon the neck, especially in an occipito-posterior position. In high operations this is almost necessarily the mode of application of the forceps.

If the cord be about the neck of the child, which is very often the case, it is almost sure to be compressed, the circulation to the placenta cut off, and the child destroyed. I am certain that this is much more frequently a cause of death from forceps use than we have been led to believe. My attention was first called to it from finding a loop of cord between the forceps blade and head in an occipito-posterior case, which had been in labor two days and required relief. I have known it to occur in several cases since. The worst feature is that even knowing the danger it is almost impossible to avoid it, since it is quite impossible to push the hand in in advance of the

blade to direct its point. The only precaution that I know of is to listen repeatedly to the fetal heart-beat after applying the instruments, and note if it continues in good force or otherwise. If otherwise, the forceps should be removed. The Tarnier blade is less likely to include the cord.

The conditions of election for the forceps are complete dilation of the cervix; sufficient time for molding of the head, that it may more easily pass through the pelvis; completion of the long rotation in occiput or chin posterior positions; and rotation of the head into the conjugate diameter of the pelvis. When these conspire the forceps in competent hands have almost no danger for the child; and the danger should not be much even with the tryo, if he has some experience in the use of tools, and is a man of good judgment. But as we recede from these conditions the risk to the child becomes greater and greater. When the head is still in the oblique diameter and not high up, the risk is not greatly increased, provided the instruments are applied to the sides of the head and in its occipito-mental diameter, with the occiput to the heel of the blades. The difficulties of application have, however, increased, and not even an expert can always get them in exact position. If not exactly applied or if applied according to some teaching in the transverse diameter of the pelvis without reference to the head, they grasp the head more or less obliquely, and if much force be required to effect delivery, may distort the head, cut the scalp, even break the skull, or more probably contuse the brain or rupture a blood vessel within. Besides, the extremity of a blade is apt to extend down upon the neck, and may include the cord, when it is around the neck, as has already been observed.

Again, the blades are more likely to slip, and, suddenly losing their hold, pass rapidly through the vagina, and tear the perineum. But the forceps should never slip in this way. There is no excuse for such an accident. I have never had it occur to me. If the instruments are accurately applied, or even somewhat obliquely, and the index of the hand that clasps the lock be extended to touch the presenting part, the operator at once appreciates when slipping begins, and can avoid it. To be forewarned is to be forearmed. All the risks to the child,

just mentioned, are increased the higher the head is in the pelvis, with the added danger resulting from the impossibility, with the ordinary forceps, of making traction in the direction of the axis of that part of the pelvis in which the head rests, and of being required to apply extra force, since much is lost by the necessary dragging of the head against the pubic arch instead of under it. The Tarnier forceps are far better suited to such cases, but they are more difficult of application. When the head is at the brim the dangers are supreme. None but an axis-traction forceps should be used in such cases.

Now, I have said that one of the conditions of election is that the cervix be fully dilated. One authority has insisted that the forceps should never be applied otherwise. This is too rigorous a dictum. In profound exhaustion with the pulse permanently 120 or more, in puerperal convulsions, in cases of hemorrhage, concealed or inevitable, when the head has remained for some time fixed in the pelvic cavity, and in some cases of inertia, we must apply them in the interests of the mother. But when these conditions are not present, and the mother's strength is good—her pulse not rising above 90 or 100 in the intervals between the pains—we should wait. It should be borne in mind that the duration of normal labor in primiparæ averages twenty hours, and often extends into the second or even the third day without serious inconvenience or harm. But there is still another reason why we should not deliver with undue haste.

Nature is wonderfully conservative, and many a case that it seemed impossible to terminate without aid, has, within an hour or so of such decision, made spontaneous changes that soon ended delivery. It seems to me that we lose sight of the great importance of the molding of the head already mentioned. Some hours should be given to this, when the head is in the brim or in the oblique diameters, and especially if the occiput be posterior. When heads are large it is the wisest course to let the molding process proceed to the fullest extent short of exhaustion of the patient. In my experience the left occipito-posterior position is considerably more frequent than many authorities admit. I have a number of demonstrated cases among my records. The risk of applying the forceps in these cases, before rotation,

is very great. In some I have seen rotation spontaneously occurring after hours of delay. In some I have succeeded in rotating the occiput forward with the forceps, and in others I have been obliged to apply the forceps before rotation, turning the occiput into the cavity, and sometimes with disastrous results to the child. In these cases, also, it is of first importance that the physician should be able to make a correct diagnosis of the position, in order that he may understand the cause of the delay, and be content to wait longer, or, if the forceps must be applied, know how to apply them to the best advantage. In too many of the cases the early application of the forceps complications and masks them for future examination. When the head remains in an oblique diameter for several hours, notwithstanding strong expulsion pains, it sometimes becomes advisable to assist it over its difficulty by traction with the forceps, whereupon it will come down easily and rapidly toward the perineum. Then the forceps may be removed, and the unaided forceps will often succeed in effecting the delivery.

Occasionally I have felt assured that the delay in the advance of the head was due to the shoulders, which either had not yet sufficiently rotated or were held back by the cervix, contracting somewhat about the neck of the child. Under such circumstances, when the head is well down and rotated into the conjugate and while considerable traction force is yet required, suddenly resistance gives way with a distinct sensation communicated to the hands, as of the child's shoulders slipping past an obstacle.



K. C. McIlwraith, M. D.:

In a case of *dystocia from uterus bicornis* with *contracted pelvis* the history of pregnancy was as follows: Mrs S., aged twenty-three, primipara, continued to menstruate for three months after the inception of pregnancy. Then, as far as she could remember, she missed two periods. Menstruation returned twice, and was absent during the last ten weeks of gestation.

I saw her about noon on October 25. She had then been having labor pains for seven hours. The cervix was not taken up; the os admitted one finger. The abdominal walls

were not thick, but the presentation was, nevertheless, difficult to make out. I finally determined the following points: Head presenting, not fixed in the brim; back to the right; breech in the extreme left hypochondriac region. At the place where one should normally have felt only the arch of the back was a large mass extending up to the right hypochondriac region, where one would expect to find the fundus uteri. The mass was especially prominent during uterine contraction, of doughy consistency, not resonant on percussion, and over it the uterine souffle was heard with especial clearness.

The pains continued all day, and by ten o'clock at night the liquor amnii was coming away, the head was still freely movable above the brim, the cervix was obliterated, but the os was only the size of a quarter-dollar.

By noon the next day it had dilated to the size of a half-dollar, and the patient was becoming exhausted, having now been in labor thirty hours.

I had the patient anæsthetized by an assistant, introduced my hand partially into the vagina, and dilated the os manually. A posterior position of the occiput was easily made out, and as easily corrected by rotation. By means of the hand in the vagina I made out a slightly shortened conjugate. The question of forceps or version arose, and I determined to decide this by means of the measure recommended by Dührssen. The patient was drawn to the edge of the bed and her legs lowered into Walcher's position. I endeavored to force the head through the brim by abdominal pressure. This failing, I resolved on version, which was easily accomplished, as there was still some liquor amnii remaining, and the body of the child extracted. To get the head through the brim it was necessary to resort to traction with the fingers of one hand in the mouth and the fingers of the other over the shoulders. The child was resuscitated without difficulty. Manual removal of the placenta was required. On the introduction of the hand into the uterus a septum was found extending about one-third of the distance down the interior of the uterus. The placenta was adherent in the right cornu, which corresponded to the mass mentioned above, and the breech of the child had evidently

been in the left cornu. The mother made an uninterrupted recovery.

The diagnosis of the condition per abdomen was of some interest. I have seen tumors, resembling this one on inspection, caused by intestine distended with gas prolapsing in front of the uterus. They, too, became more prominent on uterine contraction, but were resonant on percussion. Uterine fibroid was excluded by the soft consistency of the mass on palpation. Twin pregnancy was partially excluded by the fact that no fetal members could be made out in connection with the mass and no second fetal heart heard.

It was not easy to decide how to extract. In a flat pelvis the head engages with its antero-posterior diameter in the transverse diameter of the brim, and its bi-parietal diameter in the conjugate. Descent is accomplished by the anterior parietal bone sinking down past the symphysis, and then bulging forward beneath it, thereby allowing the descent of the posterior parietal past the promontory. Those who oppose the use of the forceps in these cases claim that the application of the blades to the head causes a bulging in the bi-parietal diameter and thereby increases the difficulty. Milne Murray has shown that this is the case if the blades be applied obliquely to the head, but that if one blade be applied exactly over the occiput, and the other over the face, that the parietals overlap the frontal and occipital, and the head increases in its vertical and not in its transverse diameters under the pressure of the forceps. Murray has, therefore, constructed axis traction forceps which are specially adapted for use in such cases. The blade is narrower than usual to favor this method of overlapping. He states, moreover, that the forceps with a pelvic curve of a seven-inch radius grasp the head nearer to the symphysis than to the promontory, and so favor the descent of the anterior parietal bone. The use of this instrument has given very good results in the minor degrees of contracted pelvis.

I did not have a pair of forceps of this pattern with me, and as the head would not pass the brim on pressure from without, I decided on version with the good results recorded.

E. J. Kempf, M. D.:

I wish to report the case of a woman who, in three successive pregnancies, in the succeeding years had *placenta prævia*. Previous to this time she had seven normal pregnancies.

The woman is a former's wife, forty-four years old, about five feet, four inches in height, and 130 pounds in weight, of average good health, and able to do ordinary housework. In her eighth pregnancy at about the beginning of the seventh month she was taken with a very violent hemorrhage without obvious cause. Dr. G. was called in and made an examination. He gave it as his opinion that it was a case of *placenta prævia*, and advised the calling of further counsel, because there was no dilatation of the cervix uteri, and, therefore, delivery by force was very hazardous, if not impossible.

Dr. G. applied a tampon of iodoform gauze into the vagina. Eight hours afterward the condition of the woman became so alarming that I was sent for, the patient living fifteen miles from my office.

When I reached the house the patient was on the point of collapse; she had fainted several times, and the pallor of her face was something awful. Without wasting a moment's time, I washed my hands with soap and water, and bringing the woman in a suitable position to the edge of the bed I proceeded to deliver her. I introduced my hand into the vagina and dilated the cervix of the uterus with my fingers according to the method described by Philander A. Harris. This digital dilation, in my opinion, saved the woman's life. (A description of the *modus operandi* appears on page 362, 1896, of Gould's American Year-Book.)

As soon as my hand slipped into the uterus I pushed through the placental mass, paying no attention to it, grasped the nearest foot of the child, turned and delivered. Without waiting to tie the cord I reintroduced my hand into the uterus and cleaned out the placenta, membranes, and all blood-clots, assisting the operation with my left hand over the abdomen of the woman by grasping and steadying the body of the uterus.

One year later I was again called to attend the woman in the sixth month of pregnancy, complicated by *placenta prævia*. Chloroform was given and I delivered her without any trouble.

There was considerable dilatation of the cervix uteri, and the placenta not being centrally implanted this time, and only partially presenting, there was not so much hemorrhage as in the previous labor. As before I turned the child in utero by grasping and making traction on the nearest foot, and then delivered the fetus, and cleaned out the womb of clots, membranes, and placenta. Again the woman recovered.

During the past summer I was for the third time in three years called to attend the woman, she being again in peril from a placenta prævia.

After cleansing and disinfecting my hands, I cleaned and disinfected the vulva and the external parts of the woman, who had been brought to the edge of the bed with her feet on two chairs. A Kelly pad was placed under her and the vagina was washed out with a corrosive sublimate solution, this being thought necessary, as the woman had been frequently examined and fingered a good deal. She was put under the influence of chloroform, and then I dilated the cervix uteri as in the first instance. There was more resistance, probably due to the fact that there had been no previous tamponing.

As soon as my hand passed into the uterus I became aware of the fact that it was numb and almost useless from the exertions incident to the dilatation; so I lost no time, but pushed through the placenta, caught the nearest foot, turned the fetus, and delivered quickly. The fetus came down very readily until the after-coming head was arrested by being encircled by the still tense os cervix. It now became apparent that I had not dilated the cervix uteri thoroughly enough. I made slow, steady, and careful traction on the fetus in order to bring the uterus within reach of the index finger of my left hand, which I introduced through the cervix beside the head of the fetus, and hooked it over the after-coming head, which I now turned out very easily, much as one would a marble out of a tight pocket. Then the labor was completed as previously related about the other times.

Again the woman recovered and is now in fairly good health.

A lesson to be learned from this case is that previous tamponing where at all possible is a mode of procedure to be recommended in placenta prævia, before the forcible dilatation and

delivery is undertaken, because the tamponing softens the cervix and makes it more dilatable.



Lucy W. Gardner, M. D.:

The following case was one of *hourglass contraction*: Mrs. S., age twenty-six, V-para, Spanish descent. Previous labors all high forceps, but living children. I was called to the case after labor had been in progress twenty-four hours, under another physician who had previously attempted to apply forceps, but had failed. On examination I found a flattened pelvis, cervix widely dilated, pains strong and frequent, patient in good condition and begging for the forceps to be applied. Under chloroform I attempted to use the forceps, the head being above the brim, but although they could be applied and locked, it was absolutely impossible to do anything on account of slipping. On attempting version, the hand seemed to find the fundus readily, but no trace of the child's lower extremities. By careful bimanual examination a band of irregular contraction could be found about in the equator of the uterus, constricting the waist of the child. Through the abdominal wall this could be felt as a salcus in which two or three fingers could be laid. This band was gradually dilated in the same way as a rigid cervix (manually, of course), and the feet brought down. After very long and tedious manipulation delivery was finally accomplished. The hourglass contraction did not yield to full surgical anæsthesia and was extremely numbing to the hand.

The child was dead before the operation was undertaken. No hemorrhage followed, and the placenta was extracted manually. No rupture of the uterus could be found. The patient did well for forty-eight hours, when she suddenly became dyspnoic and died, probably of cardiac embolism. Were I to see another similar case I should certainly do a Cæsarean section, or a symphyseotomy with use of the forceps, as I regard the long-continued and necessarily rather violent attempts at version as contributing directly to a fatal result.



E. S. Boland, M. D.:

Excluding strangulated hernias, the great majority of *hernias*

in infancy can be retained by a simple apparatus, *the woollen-yarn truss*. The worsted-skein truss has much to recommend it in the first year, when the frame is small, thin in flesh, and tender to mechanical pressure or irritation. It is easily made to measure at the bedside, and afterward can be reduplicated by the mother at a cost of a few cents, so as to have several changes at hand. It must be worn day and night, even during the bath, and only removed when wet or soiled.

It does not annoy the child, and its use insures the hearty co-operation of the mother in carrying out the equally important corrective measures. Before applying it, be sure to exclude undescended testicle or encysted hydrocele of the cord. Difficulty of reduction ought to suggest these conditions rather than a hernia.

To insure success the protrusion should be slowly and thoroughly replaced, and the truss adjusted so as to retain it and still not be tight enough to chafe or annoy the infant. Although so cheap and simple, some skill is needed in making and using this skein truss.

Measure with a tapeline the distance around the child on the plane of the pelvic inlet, beginning with and coming back to the hernia, then carry the line down on the perineum and up and out in the glutfemoral crease and almost to where it would touch the girdle part. Mark this length on the woodwork of the door or window casing, and at each end of it drive in a three-inch nail halfway to the head. Over these nails wind the worsted, previously rolled from the skeins as bought, just tight enough to keep from kinking, and use thirty to forty threads, according to size and strength required. Remove the skein, tie in the two loose yarn ends, and in one end loop a foot of white tape, and the truss is ready.

Carry it around the child with the long end at the affected groin, pass this longer end through the other loop and draw the long end down under the corresponding thigh and out and up in the gluteofemoral crease and tie the tape to the girdle. The doll which will be passed around will be the best means of illustrating the application. The doubled and loosely twisted yarn is so elastic that it will keep up a constant hug that will take up any slack made by the motion of the child. To the

medical, or rather the surgical mind of to-day, the brilliant results of aseptic operations for radical cure make any other way look like a makeshift. But to the timid and solicitous mother, the fear of the knife, and especially the possible removal from home of the infant for operation, renders the tentative use of the truss a necessity.

Its use must be coincident with general measures to reduce intra-abdominal pressure to insure the best results. Though this home-made affair has been before the profession thirteen years, it is not as well known even yet as it should be.



Charles G. Davis, M. D.:

Having fully decided that an *abdominal operation* is necessary, all things being in readiness, it is well to have it accomplished as soon as possible. There is nothing so depressing to the nervous system, and especially if the patient be a delicate woman, as the thought that, at an appointed time in the future, she must submit to a terrible surgical ordeal. The patient should enter the hospital one or two days previous to the operation. In the evening previous to the day of operation a warm bath is given, and all surfaces where an incision is expected are well scrubbed with soap and bichloride solution. A mild laxative is administered. I do not believe in excessive catharsis, for, by so doing, the system is exhausted, and often it results in deficient peristaltic action after the operation. If the patient is restless, mild suggestion is employed to encourage sleep, but no opiates or sedatives are allowed. Sleep is encouraged as long as possible in the morning, and on waking the intestinal canal may be thoroughly evacuated by an enema. The first urine passed is analyzed. Breakfast consists of a cup of coffee without sugar or cream, and a bowl of broth—no other food is allowed.

As a general rule I employ ether as a chemical anæsthetic, reserving chloroform for young children and those cases where the condition of the kidneys or respiratory organs contraindicates the use of ether. In my 237 abdominal operations, ether was used 228 times and chloroform 9 times. But in every case suggestion was resorted to as an aid to anæsthesia. I wish to

express my conviction as to the great merits of this method, and after several years of experience my gratification at the results obtained. With asepsis and attention to the minutiae of technique, I regard suggestion as one of the most powerful elements of success in surgery. With it the patient is greatly relieved of fear and sinks quietly and rapidly to sleep. There is seldom any stage of excitement, and on waking opiates are not often required. I believe that suggestion will add to the success of surgery of the future.

No matter what previous attention has been given to the field of operation, it is again thoroughly gone over with surgical soap, bichloride, etc. No one is admitted to the operating room without a gown, hands sterile, and the hair protected with a sterile cap. I regard exfoliations from the scalp as a dangerous source of infection.

I usually begin my operation about 1.30 p. m. Rash haste is bad, and unnecessary prolongation of the operation is often equally so. Every moment a patient is under the anæsthetic is a waste of vitality, therefore cautious speed is praiseworthy. I have done a vaginal hysterectomy in five and a half minutes. In the same operation where I had to use morcellation with a large uterine fibrome, two hours and a half were necessary.

During these prolonged operations, when the heart is weak, I generally resort to the normal salt solution to restore the circulation. The salt solution is safe, natural, and nutritious. Seldom is it necessary to flush the abdominal cavity—never, unless a large quantity of pus or other septic material has been allowed to escape.

In laparotomies, the abdominal wounds were closed with three rows of continuous sutures of catgut; the perineum, the fascia, and the integument, using in addition, usually, from two to three sustaining sutures of strong braided silk. The latter were generally removed from the seventh to the tenth day.

During the first forty-eight hours following nothing is given but hot water, a teaspoonful every hour or every two hours. If this disagrees, small pieces of ice are tried, and if vomiting persists give nothing. Opiates are detrimental. For more than a year I do not think I have given a dose of morphine or

other opiates in a post-operative condition. Suggestion properly administered during the first stage of anæsthesia will do much to prevent pain during these first days of recovery.

♦ ♦

W. W. Holliday, M. D.:

I present this case because it was my first experience, after twenty-two years of considerable obstetric practice, of this anomaly, *a knot of the umbilical cord*, and in questioning quite a number of my professional friends I have found but one who has met with it, and he had but one case. In looking up statistics I find Hecker reports it once in 266 cases, Elsasser once in 202 cases, and Lusk once in 200 cases. Do these statistics accord with the experience of others?

On the morning of September 24, 1900, I was called to see Mrs. O., who had been having labor pains most of the night. She was a primipara thirty-three years of age. She had always been in good health and had been feeling well during her entire pregnancy. On examining her I found the os high up and only sufficiently dilated to admit the finger. I found a vertex presentation, the pelvis roomy, and the patient strong and in good spirits. Pains were occurring about fifteen minutes apart, and were mild in character. The pains continued without making much if any progress until about 4 a. m. of September 26, when she commenced to have bearing-down pains, and when they sent for me. I had seen her, however, at different times previously to note the progress of the case. At this visit the os was dilated to the extent of only about two inches in diameter, and the bag of waters was protruding, but the head was still above the brim. After waiting for a time, and pains being regular, about every five minutes, I ruptured the membranes and the head soon advanced, coming down to the floor of the pelvis. I expected soon to be through with the case, but was disappointed. Her unyielding pelvic bones, due to her age, led me to avoid forceps as long as was consistent with safety to both mother and infant. At 3 p. m. I persuaded them to allow me to use the forceps, and soon delivered her of a healthy female—but stillborn—infant. The cord was wound around the neck once, and was pulseless. I

found one single knot in the cord sufficiently tight to cut off the circulation. The knot was about twelve or fourteen inches from the infant's umbilicus. I was unable to resuscitate the infant by artificial respiration or other means, notwithstanding its four or five convulsive efforts to breathe.



C. M. Taylor, M. D.:

The matter of routine examinations on the part of physicians and gynecologists is not, in my judgment, a proper procedure. Women do not, as a rule, favor this course, and allow it in many instances under protest. Consent under these circumstances means embarrassment and humility to the patient, and the result is frequently unsuccessful, owing to this fact.

The inquiry then suggests itself as to *when a vaginal examination should be made*. This is a matter that the physician must largely decide, but I would indicate that it should not be done until a thorough history of the case, past and present, has been obtained, summarized, and the deductions assure us that sufficient trouble exists to warrant a physical examination. Getting a thorough history of the case is helpful if the examination follows, is more satisfactory to the patient, and as a matter of record is of incalculable value.

By this procedure many cases will not be examined that otherwise would, while another class will receive attention that otherwise might be neglected.

Determining then that an examination should be made, which method should be first used? There is considerable argument in favor of the digital examination at the outset, but I am favorable to the ocular examination first, because with this method anomalies and diseased conditions can be accurately decided, which might not be discovered by digital examination, and if so would in most cases require inspection to make the examination complete. In addition, it is a protective measure to the physician. By inspection I have promptly decided in numerous instances against inserting my fingers into the vagina.

A few days ago I examined a patient by sight and found a chancre upon the cervix, which I would have failed to find, besides incurring a risk slight though it might have been.

N. E. Aronstam, M. D., and Louis J. Rosenberg, LL. B.:

No subject, save perhaps toxicology demands so much the attention of the profession as *abortion*.

The term abortion, from a strictly medical aspect, means "the expulsion of the uterine contents prior to the attachment of the placenta," which occurs about the third month of pregnancy; between the above epoch and attainment of viability, which usually takes place between the third and sixth month, it is called "miscarriage"; after this period, it is "premature labor." But in law no such distinctions exist.

Legally, any procurement of the miscarriage of a woman is abortion. The crime, however, will not be considered committed if there was no intention. To give, therefore, a full exposition of the legal view of abortion, it might be defined thus: "Abortion is the willful and intentional causing of the miscarriage of a pregnant woman." It is also "any act committed with the intention of procuring abortion," even though same may really be a physical impossibility and never took place. This latter definition is comparatively recent and mainly statutory.

Artificial abortion is only permissible in those extreme cases in which other measures have proven futile; and then only with the consent of the requisite number of colleagues, usually two physicians. When such an extreme procedure should be resorted to is not always easy to determine. But we think Professor Oehlschlager's outline can safely be followed. In the *Centralblatt für Gynäkologie*, July 7, 1900, he makes the following classification:

(1) Cardiac deficiency with tendency to hydropic accumulations (Ohlshausen).

(2) Advanced pulmonary tuberculosis.

(3) Nephritis.

(4) Cancer of the uterus and irreducible retroflexion.

(5) Pelvic deformity of such a character as would constitute an absolute indication for Cæsarean section, if this alternative is refused by the prospective mother.

(6) Uncontrollable vomiting of pregnancy.

Book Reviews.

DISEASES OF WOMEN. By Henry J. Garrigues, A. M., M. D. With 367 illustrations. Third edition, thoroughly revised. Philadelphia: W. B. Saunders & Co., 1900.

An eminently practical work on the subject of diseases of women. The results of the author's long and varied experience are manifestly evident from a perusal of its pages. Little space is given to discussing theories, but a clear, concise exposition of the subject that will appeal to every practitioner and student who wishes a working knowledge of the complex subject of gynecology. The book also abounds in many therapeutic suggestions which will no doubt be found very valuable, a feature seldom found in text-books on this subject.

A TREATISE ON MENTAL DISEASES: BASED ON THE LECTURE COURSE AT THE JOHNS HOPKINS UNIVERSITY, 1899. By Henry J. Berkley, Clinical Professor of Psychiatry at the Johns Hopkins University, etc. With lithographic plates and illustrations in the text. New York: D. Appleton & Co., 1900.

The author noting the absence from English medical literature of a comprehensive, practical work on mental diseases—one adapted to the needs of the busy practitioner as well as those of the student—offers this treatise as embodying a consideration of the principal forms of psychical disturbance. The result is a success in every way, a highly scientific yet practical treatise in a very convenient shape for either reference or study. The illustrations are new and original and the book itself is an example of the publishers' best product.

DISEASES OF THE NOSE AND THROAT. By Ernest L. Shurly, M. D. Illustrated. New York: D. Appleton & Co., 1900.

A very complete and comprehensive compendium of diseases of the throat and nose. The chapters on anatomy and physiology of the upper air passages, neuroses of the upper

air passages, diseases of the accessory cavities, and that devoted to operations in the pharyngeal and laryngeal regions are worthy of special favorable comment. The work is profusely illustrated and contains in a special department formulæ for sprays, inhalants, local applications, etc., which the author has found valuable in this special line of work.

ATLAS AND EPITOME OF GYNECOLOGY. By Dr. O. Schaeffer of Heidelberg. From the Second Revised German Edition. Edited by Richard C. Norris, M. D., Gynecologist to the Methodist Episcopal and the Philadelphia Hospitals; Surgeon-in-Charge of Preston Retreat, Philadelphia. With 90 colored plates, 62 text illustrations, and 272 pages of text.

The object of this work is to present to the reader that form of instruction which is the basis of German teaching, the offering of something tangible to the eye, something to assist the imagination. This atlas contains many reproductions of specimens, for the most part from original anatomical and clinical material, which can be studied with great benefit. The author certainly understands condensation; the text is clear, concise, and well arranged, and the principal parts of each subject given proper prominence. The book is a compact volume of convenient size, is unique, and will find a deserving place in the very large list of works on gynecology.

HOME TREATMENT AND CARE OF THE SICK. By A. Temple Lovering, M. D., graduate of Boston University School of Medicine; graduate of Boston Training School for Nurses, Massachusetts General Hospital. Boston and Providence: Otis Clapp & Co., 1901.

A very well-arranged volume of 372 pages, with a description of the usual diseases and the indications for their homeopathic treatment, as would properly come within the province of the "home doctor." This work is well done, the remedies suggested few and their indications clearly defined. In addition to chapters on "Home Nursing," "Accidents and Emergencies," "Remedies and Their Indications," those on "Approaching Maternity," "Marriage and Maternity," require special comment, and should be read by every patient, for, as the author justly says, "innocence and ignorance are not syn-

onymous terms," and a true and proper appreciation and knowledge of the physical side of one's nature is essential to a successful and judicious subordination of body to mind and soul."

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY FOR 1901. Volume II. General Surgery. 610 pages, illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Per vol., cloth, \$3 net; half morocco, \$3.75 net.

A yearly digest of the best surgical thought and practice, drawn from the journals, monographs, and text-books of the leading American and foreign authors and investigators. The work is divided into eight sections, each in charge of an editor, who makes critical editorial comments throughout, as occasion may require. The section on general surgery occupies about one-third of the volume and is handled in a masterful manner by Keen and DaCosta. Anæsthesia, surgery of the esophagus and stomach, appendicitis, and operations on the liver and gall bladder are to be specially commended. The chapters on surgery of the brain and nervous system and diseases of the spine represent much recent thought. Obstetrics and gynecology are well represented by Hirst and Baldy respectively.

OBSTETRIC CLINIC. By Denslow Lewis, Ph. C., M. D. 640 pages. \$3. Chicago: E. H. Colegrove, 1901.

A series of thirty-nine lectures, stenographically reported, on practical obstetrics, delivered to students in Cook County Hospital, Chicago. The author disclaims any intention of offering a text-book, the lectures being published practically as they were delivered. His object was to teach the management of obstetric cases and never present the subject in a didactic manner. For the exact purpose for which it was intended the idea is a most excellent one, and it is to be hoped that others, eminent clinicians, who are unwilling to take the time and labor necessary for a pretentious book, might allow their clinical teaching to be so reported and published. It is the nearest approach to an actual demonstration, it deals with the subject at hand, theories and discussions hardly have a place, the lecturer stating clearly and concisely his views and recom-

mendations. The impression thus made upon the mind of the reader is as though he were actually attending a demonstration. The author has also introduced remarks upon criminal abortion, infanticide, the regulation of prostitution, and other medico-sociological topics.

OBSTETRIC AND GYNECOLOGIC NURSING. By E. P. Davis, A. M., M. D., Professor of Obstetrics in Jefferson Medical College and Philadelphia Polyclinic. 12mo, volume of 402 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Price \$1.75 net.

This volume is designed to furnish instruction as to the various duties of the obstetric and gynecologic nurse. It requires knowledge and experience in the care of the patient during the labor and her complete recovery, with the needs of her child. The obstetric nurse must also know how to help patient and doctor in the accidents and complications of labor, and has an important part to play in caring for mother and child in the diseases which occasionally attack them during the puerperal period. Gynecologic nursing requires special instruction and training, and a thorough knowledge and drill in asepsis and antisepsis are absolutely indispensable.

In this volume the nurse will find a systematic course of instruction in the care of obstetric and gynecological patients according to the best practices of the day. The author is fortunate in his clear and comprehensive method of treating this very important subject.

CANCER OF THE UTERUS: ITS PATHOLOGY, SYMPTOMATOLOGY, DIAGNOSIS, AND TREATMENT.
By Thomas Stephen Cullen, M. B., Toronto.

This book of Dr. Cullen's is a monograph on cancer of the uterus of great value and is a lesson as to the right method of dealing with the abundant material of this kind which must be met with in every large hospital. The work is founded upon the extermination of 182 cases of cancer of the uterus. Of these, 128 were squamous-celled carcinoma of the cervix; 19 adeno-carcinoma of the cervix; and 35 adeno-carcinoma of the body of the uterus.

In describing the appearances and structure of squamous-

celled carcinoma the author states that this variety of cancer of the cervix consists of an ingrowth and branching of the squamous epithelium of the part, and coincident with the ingrowth there is generally a branching outgrowth of the stroma and epithelium, forming a cauliflower or mushroom-like growth. As to whether the stroma is a malignant growth or only due to irritation the author leaves undecided.

Dr. Cullen points out that macroscopically the cauliflower-like growth is really made up of papillary masses consisting of finger-like outgrowths. A very interesting chapter is that upon the extension of squamous carcinoma of the cervix. The author agrees with Winter that the lymph glands are usually involved late in the disease, and in answer to the question as to why this is so he suggests that the epithelial cells are too large to enter the lymph radicals. The growth must therefore extend out into the broad ligament and break into a large lymph channel before the cells can reach a lymph gland. It is stated in the preface that the reader will be surprised at the small amount of space devoted to symptomatology, but the results of his researches lead Dr. Cullen to the conclusion that diagnostic symptoms at best are meager and in the early stages give little or no clew to the real nature of the disease. Hence the value of curettage when there is the slightest uterine hemorrhage that cannot be explained. The first symptom in the great majority of cases of squamous-celled carcinoma is usually a bloody discharge.

In the treatment of squamous-celled carcinoma it is said of abdominal hysterectomy: This operation should be preferred in all cases where the patient is not too stout," and the method described by Werder is advocated. These extensive operations are at the present time practiced by many. They have, however, not yet been done in sufficient numbers to enable us to judge whether they are likely to increase the chance of complete cure or not. We must remember that the analogy so often drawn between cancer of the uterus and cancer of the breast does not in reality hold good. Werder's operation of abdominal hysterectomy is undoubtedly a very ingenious method of avoiding fouling of the peritoneal cavity with the carcinomatous growth, and he deserves great credit for it.

Whether it will ever take any permanent place in the art of surgery remains to be seen. Even when the ureters are catheterized the danger of including one in the ligature is great, and in these cases catheterization of both is often impossible.

A warning is given against the fallacious advice that even when the disease is too advanced for complete removal, hysterectomy should still be done so as to give the patient relief. Many of such patients obtain no relief at all and run the risks of the operation without any resulting benefit. In adeno-carcinoma of the cervix stress is laid upon the changes in the epithelium. Dr. Cullen says that the cells differ greatly from those of the normal cervical epithelium and cannot morphologically be recognized as derivatives from it. He also finds that, at any rate in the early stages of both squamous carcinoma and adeno-carcinoma of the cervix, no changes are to be found in the body of the uterus. One interesting fact is brought out, and that is that all forms of cancer are equally common in the white and black races, contrary to the idea which at one time prevailed that cancer was rare in the negro. The extreme importance of the examination of scrapings in the diagnosis of early adeno-carcinoma of the body of the uterus cannot be too much insisted upon, and what striking results may be obtained by the examination of such scrapings by a competent pathologist is shown by many of the cases recorded. A very good example is figured on page 363. Dr. Cullen is inclined to believe that the papillary form of cancer of the body of the uterus has probably started in the surface epithelium and that when a gland-like arrangement is met with that it has taken origin in the glands themselves. The clear statement of the author as to whether a fibro-myoma of the uterus can undergo carcinomatous degeneration is to be welcomed. He has failed to find a single instance amongst his cases of adeno-myoma becoming malignant, and, as he says, to speak of carcinomatous degeneration of a myoma is a contradiction in terms. The very late stage of cancer of the body at which the glands become involved is a similar condition to that obtaining in cancer of the cervix. In nearly all the operable cases of adeno-carcinoma of the body met with no glandular involvement had taken place. In four out of 500 cases of

myomata carcinoma of the body has been present as well. In connection with the diagnosis of cancer of the body of the uterus a clear account is given of the changes in the mucous membrane in cases of endometritis and similar conditions. In all cases of carcinoma of the uterus it is recommended that the tubes and ovaries should be removed as well, since in some of the cases, although in the early stage, the appendages were already involved. In a critical review of the rare cases of so-called squamous carcinoma of the body of the uterus it is noted that in only 9 of 50 cases of endometritis was there any thickening of the epithelium resembling squamous epithelium. Of the recorded cases of squamous carcinoma of the body Dr. Cullen is only inclined to admit three—viz., those of Gebhard, Kaufmann, and Flaischler.

Dr. Cullen is in favor of retaining the name "deciduoma malignum," and is of opinion that the clinical features are sufficient to distinguish it from sarcoma and carcinoma of the uterus. In cases of pregnancy complicated by inoperable cancer of the uterus Cæsarean section followed by Porro's operation is recommended; in operable cases vaginal hysterectomy or vaginal Cæsarean section. The results of the operative treatment in the Johns Hopkins Hospital are given. In only one case did recurrence occur other than locally. This patient remained well for more than a year and then suddenly the inguinal, axillary, and cervical glands became enlarged, and she died twenty months after operation.

Of 61 patients operated upon for squamous-celled carcinoma of the cervix 13 were still alive in January, 1900, the period of time that had elapsed since operation varying from 10 months to six years and two months. In four cases more than three years had elapsed. The uterus was removed in six cases per vaginam, in five by the abdominal route, and in the remaining two combined vaginal and abdominal hysterectomy was performed. In 12 cases of hysterectomy for adeno-carcinoma of the uterus only two (16 per cent.) of the patients were known to be living—one five years and seven months after the operation, the other five years and three months. Of 30 cases of adeno-carcinoma of the body of the uterus 20, or 66 per cent., were still free from recurrence. Of these the period since

operation varied from 11 months to six years. In twelve instances the patients had remained free from recurrence for more than three years.

In summing up the various analyses as to the causation of carcinoma, Dr. Cullen finds that heredity appears to have little influence, that trauma as produced by parturition has a causal relation to cancer of the cervix, but not to that of the body, and that the weight of evidence is against the parasitic theory.

THE PHYSICIAN'S VISITING LIST. P. Blakiston's Son & Co., Philadelphia (fiftieth year), 1901.

Announcement.—A Text-book of Special Surgery. For practitioners and students. By Dr. Franz Koenig. Translated from the seventh German edition, which has but recently appeared, by Arthur Hosmer, M. D., and edited by Christian Trugh, M. D. This work will consist of three large volumes, each containing in the neighborhood of 350 illustrations. Herbert L. Stone & Co., Chicago.

THE PRACTICE OF MEDICINE. By P. Jousset. Translated from the unpublished manuscript of the author by J. Arschagouni, M. D., about 1000 pages, ready for delivery in early spring. A. L. Chatterton & Co., New York.

Translations.

ARE NOT BASIOTRIPSY AND EMBRYOTOMY UNSURGICAL?

Audebert, *Gaz. Hebdom. de Méd. et de Chir.*, writes on an important monograph by Civel of Brest, published last year, where craniotomy and more radical operations of the same type, as practiced in obstetrics, were condemned as unsurgical. Bernstein-Wohlbrun's statistics give a mortality of 6 per cent. directly due to operations of this kind, and an absolute mortality of 15 per cent. for the total number of deaths, in-

cluding all cases where the patient's condition is unsatisfactory before embryotomy. He therefore advocates the rejection of the perforator, cranioclast, and basiotribe. In 8 cases Civel has delivered the fetus by the resources of surgery alone, employing retractors, stout scissors, volsella, forceps, and a knife from his pocket case. In transverse presentations he prefers the volsella to the decapitating hook, and cuts through the neck with scissors. Audebert admits that Civel has some grounds for his opinion, but the latter has overlooked recent statistics which show that the total mortality of all these operations, as performed by Doléris, Budin, Porak, Pinard, and Audebert himself under modern precautions does not reach 10.8 per cent. Of the entire 93, only 10 died, and in spite of, not through the operation. Civel distrusts Tarnier's basiotribe, but, if a little difficult to adjust, it easily effects its object when fixed; on the other hand, Civel's "surgical" delivery of a head too large to be delivered entire is apt to be tedious, especially if the head be big or the pelvis contracted. Speed is specially needed on account of the mother, and the basiotribe allows of speed. A surgeon, Audebert admits, obliged to deliver when no basiotribe is at hand, might do so by aid of ordinary surgical instruments, but basiotripsy will remain the favorite operation.

INDUCTION OF ABORTION.

F. Caruso, Arch. di Ostet. e Ginec., describes the second case in which he has induced abortion by means of curettage. In it, as in the first case which he published in 1894, the indication for induction was hyperemesis gravidarum, but there was an additional necessity, consisting in the presence of pulmonary phthisis. There were also signs of metritis. Under chloroform the cervix was rapidly dilated with Küstner's dilators, the uterus was emptied by means of Rapin's curette and forceps, and iodine was applied to the uterine interior in the hope of curing the endometritis. In a few hours the vomiting had ceased as if by magic (*come per incanto*). On the following day the temperature began to fall, and the operation was soon quite recovered from; the pulmonary condition remained much the same. A list of about 37 cases in which this method of inducing abortion has been used by various obstetricians is given, from which it seems there has been no maternal mortality. The indication has generally been hyperemesis, but it has also been undertaken for phthisis, for pelvic contraction of high grade, for syphilis, melancholia, septicæmia, and hystero-epilepsy. Caruso contrasts it with

the injection of glycerin into the uterus, the application of iodine to the interior of the uterus with a metallic sound, the introduction of a piece of solid nitrate of silver into the uterus along with the giving of ergot by the mouth, and the injection of tincture of iodine through a catheter right up to the fundus uteri. He believes that it excels all these methods; that, in a word, it is the procedure of election for forced extemporaneous induction of abortion in the first three months of pregnancy.

SIMULTANEOUS NORMAL AND EXTRAUTERINE PREGNANCY.

Hermes, *Deut. med. Woch.*, relates a case in which operation for an extrauterine pregnancy was successfully performed, the uterus being at the same time gravid; after convalescence delivery took place at term. The patient was aged thirty and in her eighth pregnancy. She had borne three children normally, then aborted five times. The last abortion occurred a year before the beginning of the last pregnancy. She had undergone trachelorrhaphy and an operation for prolapse. The period ceased for six weeks, then slight show and labor-like pains set in. A fortnight later these symptoms recurred, and the patient fainted. Next day several attacks of syncope occurred. The uterus was enlarged, and a soft mass could be felt in the left fornix. At the operation the left tube, bearing a fetal sac, was removed; it lay in a hematocele, and the uterus was seen to be large and soft. The abdominal wound was closed with a single layer of deep sutures. During convalescence the uterus steadily grew larger. Delivery took place at term spontaneously; there was no rise of temperature during childbed. On the twenty-third day the curette was applied, as there was much show; a quantity of decidua was removed. Diagnosis was not very easy in the early stages of a compound gestation of this kind; in this instance the pregnancy had hardly reached the eighth week. As pregnancy advanced after the operation Hermes was struck by the relative firmness and hardness of the left side of the gravid uterus. The right side was much more developed, soft, and almost fluctuating. This peculiarity was probably due to the tenseness of the left broad ligament, which bore the ligatured stump of the tube, and in part to disturbance of circulation due to the ligature and consequent alterations in the nutrition of the corresponding side of the uterus. During the later months of pregnancy the two sides of the uterus became uniform in consistence. Hermes is careful to note that though only one set of sutures was applied to the wound, and pregnancy continued for several

months, there was no stretching of the cicatrix and no hernia developed.

POST-MORTEM CÆSAREAN SECTION.

Seitz, Monats. f. Geburts. u. Gynäk., October, 1900, reports a case in which the fetus was extracted immediately after the mother's death, but unsuccessfully. The mother was thirty-seven, and had borne ten children. She was subject to ascending paralysis and puerperal convulsions, dying suddenly during the twentieth fit. On the ground that the fetal heart sounds were clearly audible three hours previously, the uterus was opened through the abdomen directly after the patient's death. The fetus was in a strong condition of muscular rigidity with cyanosis, the heart still acting for a short period, but it could not be made to breathe. The placenta lay anteriorly, reaching from the fundus to the internal os. The transverse incision along the fundus had been made so that the placenta was not damaged. The os externum admitted two fingers. The lower segment was two inches in vertical measurement and rather sharply defined. The ovaries were exceedingly small.

INTRAVENOUS INJECTIONS OF NORMAL SALINE SOLUTION IN PUERPERAL FEVER.

Calderini, Arch. Ital. de Biol., has employed this method of treatment in three cases of puerperal infection in the obstetric clinic of Bologna. (1) A single intravenous injection was given in a desperate case of puerperal infection; death occurred a few hours later without even temporary improvement having been effected. (2) In a case of puerperal endometritis two injections were given after local treatment had failed to arrest the pyrexia; recovery followed. (3) A woman had puerperal parametritis with prevesical and subperitoneal exudation and abscesses in the thigh and breast. Two injections of saline solution were given after the abscesses had formed and been evacuated. The temperature fell after each injection, but soon rose again. The patient was then removed to another clinic and lost sight of. These three cases show that intravenous injections of saline solution are harmless, and have a good effect by mechanically washing out the blood. They should be given whenever local treatment fails to arrest the process. While the injection is being given the pulse becomes fuller and stronger, the blood pressure rises, the respirations become deeper and less labored, and the temperature rises. In the

second and third case each injection was followed by a considerable fall of temperature, accompanied by an attack of shivering which lasted for some hours. The pulse then became frequent and irregular, respiration was accelerated and labored, and the temperature rose; simultaneously the face became flushed. Some hours later a considerable improvement in the general condition appeared, and was ushered in by a copious evacuation of fæces and urine. The saline solution employed contained 0.75 per cent. of sodium chloride, and the quantity injected at a time varied between 500 and 600 grams. The median basilic or median cephalic veins were opened in the ordinary way, and the cannula was inserted in a centripetal direction. After its withdrawal an antiseptic dressing was placed over the wound. The writer suggests that it might prove useful after the failure of local treatment to combine injections of normal saline solution with injections of antistrep-tococcus serum.

SIMULTANEOUS TUBAL AND NORMAL PREGNANCY.

Straus, *Zeitschrift f. Geburts. u Gynäk.*, vol. xliv., pt. 1, 1900, has written a valuable monograph on this important condition, including a case under his own care. No fewer than thirty-two instances of tubal pregnancy coexisting with intrauterine gestation appear in his tables. His own patient was thirty-four, a 2-para, the right tube was involved, and its pregnancy had reached the twelfth week when Skäffer operated, removing the right tube and ovary. Three weeks later a fetus of about the fourteenth week was expelled. Symptoms of inflammatory pelvic mischief followed, and the patient died suddenly of pulmonary embolism six weeks after the abortion. In Straus' tables the maternal mortality amounts to 14 in the 32, but 10 of the 14 were in cases dating from 1820 to as far off as 1879. In 13 cases both extrauterine and intrauterine pregnancies continued to term; in 4 both fetuses were living, and out of these 4 no fewer than 2 were cases where both fetuses were delivered alive, the one normally, the other by abdominal section, but 1 mother was lost out of these 2 cases. In 3 cases 1 pregnancy alone continued till term, in 2 it was the normal gestation, in 1 uterine abortion occurred at the sixth week, and the tubal pregnancy continued to term. In 5 cases the simultaneous pregnancies were diagnosed before uterine labor and any operation. In 9 cases the diagnosis was made after spontaneous termination of the uterine pregnancy. In 6 cases it was not made at all, being discovered at a necropsy; in 6 it was detected during ab-

dominal section, in 2 after abortion of the uterine pregnancy, in 2 at an abdominal section after abortion, in 1 after detachment of the placenta from the uterine cavity, whilst in 1 intra-uterine pregnancy was not detected till two months after the tubal sac had been removed. This is the only case in which after that operation uterine pregnancy continued to term. The child was living and was reared.

INTRAUTERINE CRYING.

Planchu and Reure, Lyon Médi., January 6, 1901, discuss a case in which Reure heard loud crying of the child in utero for more than an hour nine days before delivery. The patient complained of a watery discharge, and as on examination no sign of the onset of labor was found, was ordered rest in bed and vaginal douches of hot water. Instead of the douche a pear-shaped syringe was used, which was afterwards shown to eject much air with the water. Reure was called because of the crying, which was so loud on his arrival that he expected to find the child born. The cries gradually diminished in intensity, but are said to have lasted almost continuously for two hours and a half. On each of the following nine days fetal movements were felt, and the fetal heart sounds counted to be on an average 135 per minute. The child was born breech first, alive, but very asphyxiated, and was lost owing to the urgent need of attention on the part of the mother, who was bleeding. No examination of the lungs was permitted. Planchu argues that this case pleads strongly in favor of the theory that the first respiratory movements are caused by the contact of the nasal and buccal orifices with air rather than by obstruction of the fetal circulation.

SECRETORY FUNCTION OF THE PLACENTA.

Nattan-Larrier, *Compt. Rend. Soc. de Biol.*, vol. lii., December, 1900, after referring to the statements of Creighton and Ercolani in regard to an internal secretion of the placenta, points out that in the normal placenta of the guinea-pig little hyaline globules can be recognized lying attached to the plasmodial layer which covers the villi, or free in the blood spaces around the villi. These vary in size from that of a nucleolus to that of a red blood corpuscle, have a rounded form, and a gray color staining blue with toluidine and eosine-orange. They are not pathological formations, although they are more marked in the placenta of guinea-pigs that have been infected

with Loeffler's or Eberth's bacillus; they are the secretion of the placenta formed in the plasmodium of the villi, and on their way to the organism of the mother. In connection with Nattan-Larrier's observations Letulle (*ibid.*) stated that the same hyaline droplets could be seen in the healthy human placenta, both when it was developed in the uterus and when it formed in the fallopian tube in tubal pregnancy. They lay on the surface of the villi.

CARCINOMA UTERI.

Wertheim, Wiener klinische Wochenschrift: During the last two years Wertheim has been having many sections made of the glands and parametrium in every case of cancer of the uterus that came to operation, thirty-three in all. In eleven some of the glands in the region were found invaded by the carcinoma, including five in which the neoplasm had been supposed to be in its earliest stage. That is, in twenty-six cases of operable carcinoma of the cervix the glands are found involved in 20 per cent. In one case, a commencing cancrioid of the portio, a cancerous gland about the size of a cherry, was found close to the right external iliac vein. No traces of cancer could be discovered in any of the other glands nor in the parametrium. In another case, a circumscribed nodule on the posterior lip of the portio vaginalis was accompanied by a cancerous gland, the size of a hen's egg, on the left external iliac vein. In a third case the cervix was entirely cancerous and a cancerous gland was found close to the right uterine vein. In the fourth, the cervix was cancerous, and the parametrium and neighboring glands were normal, but at the point where the left ureter crosses the common iliac a cancerous gland the size of a cherry was found. In the fifth, a narrow strip of cancerous tissue in the right parametrium led to a very large cancerous gland adherent to the external iliac vein. Cancerous fibers and nests were found several times in the parametrium, when to the eye and touch it seemed perfectly normal.

He considers these findings important testimony to the necessity of extirpating the glands in the vicinity and the parametrium in all cases. His technique includes exposing and liberating the ureters and the iliac blood-vessels. The glands are carefully sought for along the vessels and excised, up to the fork of the abdominal aorta, and the parametrium and paravaginal cellular tissue are extirpated with the uterus and the upper portion of the vagina. Omitting light inoperable cases, he has had three die out of 25 patients operated on, one from invagination of the small intestine, the others from perito-

nitis. The remainder recovered and have shown no signs of recurrence to date. The operation requires seventy-five to ninety minutes. The ureters are easily isolated unless fixed by inflammatory processes. The vessels are readily exposed. Hemostasis has to be applied to even the smallest ramification of the veins and trained assistance is necessary. Provisory ligature of the hypogastric artery was of no appreciable benefit. The extirpation of the glands is difficult only when they are adherent to the vessels. In future, he remarks, it may be possible to restrict the extirpation to those glands alone which are tumefied, as in none of his sections were traces of carcinoma to be found in the normally small glands. The general health and the state of the heart should be carefully weighed before attempting intervention. If these are favorable gratifying results may be attained.

FIBRO-MYOMA AND PREGNANCY.

Hoffmeier, *La Presse Médicale*, derives the following conclusions as to the relation between fibro-myomata of the uterus and conception from 150 observations on patients suffering from myomata:

(1) In a series of women suffering from fibro-myoma of the uterus the proportion of unmarried to married is not greater than in a series of women suffering from various gynecological affections.

(2) Although the proportion of women suffering from myomata and sterile (about 25 per cent.) in relation to the general percentage of sterile marriages (about 11 per cent.) may be to high, yet this sterility must not entirely be put down to the myomata, because in a considerable number of cases sterility must have already existed several years. In fact, in 11 per cent. the sterility already existed for several years.

(3) Considering that out of 550 patients 224 have never conceived and seventy have only had a single pregnancy, the conclusion can be drawn that the absence of pregnancy favors the appearance of fibro-myomata.

(4) The existence of myomata has little injurious effect on conception (forty-four personal observations), and does not often interfere with the progress of pregnancy. For this reason operative interferences are seldom necessary during pregnancy, and only need be performed at the end of term.

(5) Delivery is often effected with little care, but after the puerperium operations may have to be performed either through the abdomen or per vaginam, but as a rule these operations are easy.

ASTHMA AND THE PUERPERIUM.

Auderbert, *La Presse Médicale*: Common asthma, as well as hay asthma, may appear for the first time during the puerperium. Sometimes it appears only during pregnancy, and even in several successive pregnancies. Thus, a patient of the author's, who had had four children, suddenly had an attack of asthma, which drew attention to the fact that she was three months pregnant. The patient was not aware of it, as she was then suckling, and had not menstruated. Thus asthma may become a veritable sign of pregnancy. If the disease exists before pregnancy, it may become greatly increased during gestation. At the time of delivery the attacks become particularly violent and dangerous. Sometimes, however, they are absent.

The prognosis is serious for the mother—one case in seven died—and for the infant, who suffers more or less. Spontaneous movements are momentarily interrupted, and in a case of the author's the fetal heart could not be heard in spite of most careful auscultation. In this case the infant was still-born. The dyspnœa, however great, never produces uterine contractions. On the other hand, labor very certainly increases the onset of suffocative attacks. The treatment adopted is morphine for common asthma, and quinine for hay asthma. Induction of labor is indicated in the interests of the child if the attacks are serious and often repeated. The induction should be performed between the attacks, and delivery accelerated by manual dilatation, and completed by forceps or version.

PRIMARY INSUFFICIENCY OF MILK SECRETION.

Jacob, Obstetrical Section of International Medical Congress, relates a case in which the milk secretion was at first very scanty, and although the child was put to the breast every two hours and a half from five in the morning until eleven at night, the secretion was not fairly established until this procedure had been persevered with for five weeks. The increase of secretion was quite insensible, but at the end of five weeks the child was completely nourished by the breast. In the meantime it was fed on sterilized milk, in addition to the small amount of breast milk obtained. The child gained in weight throughout. The author concludes that many women who give up their efforts because at first the milk secretion was insufficient would be able to suckle their children successfully if only they persevered long enough.

TUBERCULOSIS AND PREGNANCY.

Bernheim, the Obstetrical Section of the International Congress of Medicine, draws the following conclusions from his own personal observations and the writings of others:

(1) Pregnancy does not provoke fatal tuberculosis in those predisposed to it. Latent or old tuberculosis is not revived by a single simple pregnancy. In predisposed persons the younger the patient the more likely is pregnancy to provoke tuberculosis; hence it is wise for young girls not to marry too early if there is any chance of their being predisposed to tuberculosis.

(2) Tuberculosis is much more aggravated by pregnancy if the lesions are gross and well marked.

(3) If a single pregnancy sometimes has no effect on a dormant tuberculosis, it is not the same with multiple pregnancies, which are always disastrous.

(4) The puerperium is always to be dreaded in phthisical patients, and suckling should be prohibited.

(5) In all cases where tuberculosis is aggravated during the first weeks of pregnancy it is sound practice for the physician to induce premature labor.

(6) The influence of paternal tuberculosis can practically be considered as nil.

(7) Tuberculosis in women is a frequent cause of abortion.

(8) After labor the baby ought always to be removed far from sources of contagion, and if placed in suitable hygienic surroundings has a fair chance of growing up healthy and strong.

RUPTURE OF A FETAL SAC INTO AN OVARIAN CYST.

Urbain, *Gaz. Hebdom. de Méd. et de Chir.*, was consulted by a woman who believed that she had reached term. After exploration he diagnosed cyst of the right ovary and left extrauterine gestation. The patient was very ill, the legs oedematous, the belly enormously distended, its veins dilated, and its outline bilobular. The right lobe was the larger; it fluctuated. The left was firm and irregular in shape. The os uteri was patulous; the uterus measured over $4\frac{1}{2}$ inches. At the operation a large ovarian cyst was emptied; it was multi-locular, and in breaking down the septa the left tumor was found to communicate with one of the loculi. Urbain withdrew a macerated fetus of the seventh month. Hemorrhage was so severe that he at once packed both cystic cavities; the

outer wall of the ovarian cyst was marsupialized. The placenta came away in fragments, and the patient was well in six weeks. On careful revision of the history of the pregnancy it transpired that during the seventh month the patient had an attack of abdominal pain and vomiting which lasted forty-eight hours. The fetus doubtless entered the ovarian cyst at once.

TREATMENT OF STRABISMUS IN YOUNG CHILDREN.

Priestley Smith, International Congress, advocates the treatment of strabismus in early infancy—in fact, from its inception. In this way loss of power of fixation in the squinting eye may be avoided. Our means of treatment are, broadly speaking, three. First, we can diminish accommodative effort and sharpen vision by glasses, or we can hold accommodation in abeyance by the continued use of atropine. Secondly, we can exercise the squinting eye, or both eyes alternately, by the use of a pad or shade. Thirdly, we can operate. If no improvement results from steady persistence in the use of glasses and the pad, he resorts to early tenotomy, as he thinks the chance of getting binocular vision is thereby much increased. He has operated several times at two years of age, and more frequently at three and four, and has seen no reason to regret it. He urges that in every case the child should be thoroughly examined soon after the squint begins, and that the profession, and through them the public, should have this principle impressed upon them.

MALIGNANT ADENOMA.

Selberg, Virchow's Archiv, has had the opportunity of examining a large number of preparations which microscopically were true adenomata, but the clinical history of which was that of carcinoma. There is a considerable difference of opinion among authors as to whether the malignant adenomata should be considered a distinct group of new growths. The malignant adenomata of the uterus have provided most of the literature of the subject; Schröder was the first to give an accurate description of these growths, and divided them up into adenoma diffusum and adenoma polyposum. Most authors have followed him in distinguishing the disease from carcinoma; but Kaufmann has maintained, on the ground of a single specimen, of a growth originating in a cervical stump

left after supravaginal amputation, that there is no distinction between the two. The author describes two specimens of cervical adenoma and three of adenoma of the body of the uterus clinically malignant, but consisting entirely of glandular proliferation—that is, spaces lined with epithelium resting on a fibro-muscular framework. The cells are all of the one type; there is not the polymorphism of cancer cells, nor are the solid masses or columns of cells characteristic of the latter disease found in the malignant adenoma. Five cases of malignant growth of the digestive tract are also described, all microscopically true adenomata. In these as in the uterus polypoid excrescences are a common characteristic. Single benign polypi are, of course, not uncommon both in uterus and intestine; in the latter also there may occur extensive multiple polyposis without malignant characters, but this condition in either situation should always suggest malignant adenoma. The author considers that this type of growth is distinct from true carcinoma, in that it retains its glandular characters both in primary growth and metastases, that the cells are of one constant type, and that no solid masses or multiplied layers of cells are formed.

CALCIFIED OVARIAN FIBROMA; EXTREME CHRONICITY.

Pokrovsky, Khirurgi, notes a singular case where a very little tumor had existed for some twenty years, according to the patient's own report. For two years it caused occasional paroxysmal pain, especially when it slipped into the abdomen out of the pelvic cavity. It could be clearly defined by placing the patient in the genupectoral position, then it slipped over the pubes, and felt stony. It was freely movable and well pedunculated. At it worried the patient, who was fifty-eight, it was removed by abdominal section. The tumor measured 2 inches by $2\frac{1}{4}$ inches, but weighed eight ounces, and was of stony hardness. It proved, on microscopic examination, to be a fibroma completely calcified. Traces of ovarian tissue were detected. There was no ascitic fluid in the peritoneal cavity.

HEMORRHAGE IN A CASE OF PLACENTA VELAMENTOSA.

Kaygrier, Sem. Méd., 1900, mentions a variety of puerperal hemorrhage, which, as distinct from placenta prævia and accidental hemorrhage, is dangerous to the child only and not to

the mother. He relates a case in which pregnancy was normal and no bleeding took place until the rupture of the membranes. When the patient was first seen the fetal heart sounds could not be heard; otherwise nothing abnormal was discovered. A stillborn child was delivered naturally. Examination of the after-birth showed that the cord was inserted 5 cm. from the edge of the placenta, and at the point where rupture of the membranes had occurred a torn umbilical artery was seen. A careful search for pulsation over the presenting membranes is therefore advisable as a routine measure. If such pulsation is discovered the proper treatment is early artificial rupture of the membranes as far away from the pulsating area as is practicable.

PREGNANCY WITH GANGRENOUS FIBROID OF UTERUS.

Münchmeyer, *Centralbl. f. Gynäk.*, recently exhibited at a Society in Dresden a myomatous uterus of the size of a man's head. In its cavity was found a normal well-developed ovum of the second month, with a healthy fetus, yet a gangrenous interstitial myoma projected into the cavity. As the catamenia were irregular before the operation pregnancy was suspected.

PLACENTA PRÆVIA.

Amadei and Ferri, *Il Policlin.*, reported to the Italian Gynecological Congress a series of 97 cases of placenta prævia in 5136 cases at Milan Maternity hospital, a proportion of 1.89 per cent. Eleven were in primiparæ and 86 in multiparæ, and in only 24 cases did the mother reach the full term, all but 1 of these 24 being marginal. In 5 cases the mother died: (1) Severe anæmia due to hemorrhage from the placental site and from a laceration of the cervix; (2) embolism on the second day; (3) embolism during intrauterine irrigation after delivery; (4) severe anæmia during podalic extraction; (5) acute pleuro-pneumonia on seventeenth day, after dilatation of cervix and use of forceps. The treatment was varied; in 2 cases it was medical only. Plugging was used in 10 cases, loss of 1 mother and 1 child; rupture of amnion in 16 cases of longitudinal position of the fetus, no mother and 5 children lost; in 2 cases of rupture of the sac after external version 1 child was lost. In many cases the rupture of the amnion failed to stop the hemorrhage. Podalic extraction was practiced in cases of marginal placenta prævia, where the cervix was more

or less dilated, enough to permit the bringing down of the limb. In a case of central placenta prævia Tarnier's method was used. (In this hospital continuous traction by means of a weight is often adopted to secure slow extraction with great advantage to the mother.) Turning was done 42 times; 23 by the classical method and 19 by Braxton Hicks' method, with 8 and 7 fetal deaths respectively. Forceps were used in 7 marginal cases; in 1 case the mother died (pleuro-pneumonia). There were 3 craniotomies in cases of dead fetuses with excellent results as regards the mother.

GONORRHEA IN THE GENITAL TRACT OF A NEWBORN CHILD.

Aichel, Hegar's Beiträge, observed this case. The mother had gonorrheal discharge from the urethra, verified by microscopic examination. Four days after birth the infant had swelling with redness about the vagina; from that date to the tenth day there was purulent discharge which for the three succeeding days was sanious. The infant's general condition remained good, no inflammation of the surrounding connective tissue followed. Plenty of gonococci were detected in the pus, which when cultured yielded diplococci and bacillus coli communis. Aichel suspects that gonorrhea of the vulva may be frequent in the infant, and that it ascends quickly, the vulva healing. It may explain the bleeding and erosions not rare in infants; also it may cause the so-called "congenital" atresia vaginæ.

PREGNANCY COMPLICATED BY ACUTE YELLOW ATROPHY OF THE LIVER.

S. Z. Ruzdsky, Vrach, relates the case of a woman aged twenty-four, who, on admission, in addition to the classical signs of advanced pregnancy, presented symptoms of acute gastro-intestinal disorder. On the ninth day after admission a profound icterus developed, along with symptoms indicative of acute yellow atrophy of the liver. There was incessant vomiting, considerable decrease in the daily quantity of the urine, which contained, besides leucin and tyrosin, numerous pigmentary deposits, while the spleen was greatly enlarged, there was marked diminution in the size of the liver. Trembling of certain groups of muscles and convulsions were also noted, and ultimately deep coma supervened. At this stage abortion took place, and was followed by a rapid improvement

in the general condition. The quantity of urine quickly increased, and its pathological constituents disappeared; the profound icterus soon lost its grave character, and the liver gradually returned to its normal size and shape. Ultimately, complete recovery took place. This case is one of the very rare and very few instances recorded up to the present time in which acute yellow atrophy of the liver was followed by complete recovery. That affection is almost invariably fatal, particularly when complicating pregnancy. Beyond the occasional administration of the usual purgatives and cardiac tonics, and of a strict diet, consisting chiefly of milk, no other remedies were employed.

HISTOLOGY OF THE LIVER IN PREGNANCY.

S. Miotti, *Annali di Ostetricia e Ginecologia*, has made observations on the microscopical characters of the liver in pregnancy in guinea-pigs at various stages in utero-gestation. He finds that in the early stages there are to be seen here and there, and in small quantity, hepatic cells, which are enlarged, and contain granules or droplets of fat arranged round the nucleus. In more advanced stages the fat is found in greater amount in the cells round about the central vessel, and later still in rays which pass from the center toward the periphery. Near the full term the fat is still more increased, and is uniformly distributed in the cells of the lobules in small, medium, large droplets. The weight of evidence is in favor of the fat being a degenerative product of the cellular protoplasm rather than an infiltration. It would seem that in pregnancy there is a greater production of fat; at any rate, a smaller consumption of it is unlikely, for the fetus needs and calls for fat, especially in the later months.

HYSTERECTOMY IN PUERPERAL FEVER.

Jorfida, Gazz. degli Osped., reports two successful cases of total vaginal hysterectomy for puerperal infection. Out of the 35 cases hitherto recorded 22 have recovered; as far as the figures go it seems that vaginal hysterectomy is more fatal than abdominal. The first case was that of a woman, aged twenty-seven, multiparous, who was prematurely (six months) confined on January 17, 1899. On the third day she went to work in the fields, and was seized with severe pain. She was admitted into hospital January 27 with diarrhea, vomiting, severe pain and fever, and in a partially typhoid state. The

uterus was soft and tender, and had hardly undergone any involution. Endouterine sublimate douches were given. On January 31 the uterus was curetted. As no improvement followed total vaginal hysterectomy was performed on February 1. The patient left the hospital completely cured on March 3, 1899, and when last seen (September, 1899) was in the best of health. The annexa, which were secondarily infected, were at the same time removed. The second case was similar to the above; the woman left the hospital cured forty-six days after the operation.

POST-PARTUM RETENTION OF THE MEMBRANES.

C. Maygrier, *L'Obstétrique*, reports 2 fatal cases of retention of the membranes out of 142 cases in all, a mortality of 1.4 per cent. In 16 other cases there were signs of infection, but these recovered. In one of the fatal cases a ligature was placed upon the projecting strip of membrane—Tarnier's suggestion—but it came away without the membranes, and digital scraping and clearing out the uterus and afterward curettage also were employed, but without averting the fatal issue. In the other case, not the membranes, but the decidua alone was retained, and yet infection occurred; digital cureage, curettage, and later hysterectomy was performed, but death occurred on the forty-fourth day (acute septicæmia). Prophylactic clearing out of the uterus is therefore recommended.

PUERPERAL NEURITIS.

Münchmeyer, *Centralbl. f. Gynäk.*, reports a case where the symptoms of neuritis set in on the seventh day of childbed after a normal pregnancy and natural labor; the patient was young. With complete anæsthesia of both legs the reflexes were entirely lost; there was disordered sensation in the region of both ulnars, and trophic disturbance in the muscles of the calf. These symptoms subsided without special treatment in a few days; the infant was weaned directly the attack set in, and the patient kept absolutely at rest. Münchmeyer believes in the prejudicial influence of lactation on neuritis. Schramm, in a discussion, reported an unpublished case under his own care; it had nothing to do with suckling. The patient was twenty-five years old, and at the first labor the forceps were applied on account of pelvic contraction. The second was spontaneous; on the second day of childbed there was cramp

in the left leg; on the third, twitching of the right knee, with swelling and hyperæsthesia of the thigh. Five days later fever and free perspiration set in. For nearly a week the temperature ranged between 100° and 104° . Active and passive movement of the right leg caused much pain, followed by convulsive movements; near the right tuber ischii a tender spot was detected, and the leg flexed itself when that spot was touched. The uterus was movable, and there was no parametritic exudation. Galvanism gave relief to the twitchings of the calf, which had become very frequent. Stretching of the ischiatic nerve under narcosis, and a blister placed on the tuber ischii, stopped the twitchings altogether. In about ten days the patient was well. This case corresponded to von Winckel's neuralgia ischiadica puerperalis. Osterloh, in a practice of twenty-eight years, stated that he had only seen two cases where both legs were paralyzed after labor.

THE PUERPERIUM AND INTERSTITIAL FIBROID.

Hammerschlag, Monatschr. f. Geburtsh. u. Gynäk., relates four instructive cases. Case I. The patient aborted at the fifth month of her first pregnancy, then an interstitial fibroid was detected. The temperature rose to 100.5° , and pains in the hypogastrium set in and continued for over six months; then Winter removed the uterus successfully by supravaginal amputation. The tumor, as big as a child's head, adhered to the sigmoid flexure; in separating the adhesion a little purulent fluid escaped. Case II. The patient was delivered of her first child at the seventh month, and carried the second to term, but it was dead and macerated, and could not be delivered without craniotomy owing to obstruction from a tumor. A free discharge of blood continued for two or three months; then Winter successfully removed the uterus by supravaginal hysterectomy. The fibroid lay in the upper part of the cervix and burrowed into the peritoneum; it was nearly as big as a man's head, and showed necrotic changes. Case III. The patient had borne a child eleven years since. A myoma of the size of a child's head was detected quite recently in the uterus to the right; the patient became pregnant, and aborted at the fifth month. The placenta was extracted manually under anæsthetics. Much uncontrollable flooding set in, so that at the end of the fifth week after the abortion Winter removed the uterus by the supravaginal operation. The tumor was of the size of a man's head. It was in a necrotic condition, partly through endarteritis obliterans of its arteries. The patient re-

covered. Case IV. The patient had been delivered of a dead child by forceps at term six months previously. Much bleeding and fetid discharge set in during childbed, and continued for six months, causing profound debility. The cervix was dilated, and a sloughy interstitial fibroid detected. Winter successfully removed the uterus through the vagina. It is clear that pregnancy causes much change in a uterine myoma, and that the growth is exposed to damage at the puerperium.

THE CONGENITAL TRANSMISSION OF TUBERCULOSIS THROUGH THE PLACENTA.

D'Arrigo, *Centralbl. f. Bakt.*, remarks that inheritance of tuberculosis may conceivably take place in three ways: (a) By the inoculation of the impregnated ovum by spermatic fluid containing the bacillus; (b) by infection in a tuberculous ovary; (c) by the passage of the bacillus into the fetus through the placenta. He has never been able to find the tubercle bacillus in the spermatic fluid of infected guinea-pigs or in that of men affected with tuberculosis, except in the presence of disease of the generative organs themselves, or in the ovaries of women who have died from tuberculosis elsewhere. In experimentally investigating the third possible method of transmission, the bacillus must be demonstrated simultaneously in the placenta and in the fetal organs in order to exclude infection by contagion at birth. Guinea-pigs were used. A certain number were infected, and then impregnated by healthy males; others were first impregnated and then infected. The latter nearly all aborted, but in one which did not tuberculous lesions were found in the placenta and in the fetal liver. Those first infected and then impregnated showed tuberculous lesions varying with the period at which they were killed. The lesions occur in the following order: Utero-placental vessels, tissue of caduca, fetal vessels, chorion, and then that fetal organ in most direct connection with the maternal circulation, the liver. The animals born at full term and left alive all died in from five to sixteen days from general tuberculosis with lesions in the liver, spleen, lungs, mesenteric, and mediastinal glands.

DENTAL CARIES IN PREGNANCY.

Assumma, *Il Policlin.*, discusses the cause and prophylaxis of dental caries in pregnancy. It has hitherto been explained as due to absorption of mineral matter from the teeth to form fetal bone. The author asks why the maternal bones are not

absorbed also, discusses the physiology and embryology of the matter, and shows that there is no foundation for this view. He investigated experimentally, giving to 50 gravid women 23 grs. daily of calcium phosphate, to take the place of the supposed waste of the dental tissue; to 25 of them he gave in addition a mouth wash of sodium bicarbonate. The latter 25 had nothing but the most trivial dental changes; of the other 25, who had no mouth wash, 13 had caries of the molars, and 2 had intense dental neuralgia. Ptyalism is one of the frequent sympathetic phenomena of pregnancy; the buccal secretion of gravid women readily ferments, and instead of alkaline becomes acid. All dental caries is due primarily to the erosive effects of acid secretions, permitting the subsequent growth of *leptothrix*. The author holds that his experiment shows that the dental caries of pregnancy is caused in the same way as other caries, but that all the factors are more active.

OPERATIONS FOR FIBROID AND PREGNANCY.

Gillaume and Keiffer, *Bull. de la Soc. Belge de Gyn. et d'Obstét.*, note that isolated interstitial fibroids developing during pregnancy often soften down, or are so placed as to be out of the way of the pelvic brim, and thus do not prejudice pregnancy or parturition. On the other hand a true hyperplasia or an interstitial fibromatosis sometimes occurs; it seems to modify unfavorably the entire mechanism of parturition. When such a condition is detected during gestation an operation is indicated, as there is constant danger of rupture of the fetal sac. Keiffer operated in one case where a fibroid mass reached to the epigastrium and blocked the pelvis, flattening the cervix against the pubes. The outline of a fetus could be felt through the parietes; it lay in a fluctuating tumor, the portion of the uterus least implicated in the fibroid growth. Pregnancy had clearly advanced to the fifth month. The entire fibroid uterus formed an immovable mass. An operation was clearly indicated, and the whole mass was removed entire above the cervix. Some adhesions had to be broken down, but the operation proved much easier than expected, and but little blood was lost. Convalescence, as is often the case under the circumstances, was speedy, the temperature never rising to 100° F. As there was a little vasomotor disturbance sparteine was administered to avoid the tendency to syncope which endangers hysterectomy cases. The pregnancy had developed in a retroflexed uterus, the fundus being occupied by the mass which filled the pelvis. The anterosuperior part of the uterine wall formed the uppermost part of the tumor, while only a

small part of the inferior segment had been able to dilate so as to lodge the ovum.

DRAINAGE OF UTERUS IN TREATMENT OF SALPINGITIS.

M. Beaussenat, *Rev. de Gyn. de Paris*: Walton's method of forcible dilation of the uterus, followed by curetting and prolonged drainage with a stiff rubber tube, has been applied by the writer in twenty cases of salpingitis consecutive to endometritis. The catarrhal form was always cured. This result was also frequently obtained in non-cystic, purulent salpingitis. Old and painful parenchymatous salpingitis was much improved in nearly every case. Peri-uterine infiltration may be absorbed after dilation, curetting, and drainage of the uterus. The same treatment is also indicated for pyosalpinx if it is unilateral, recent, small, and has not caused many inflammatory symptoms, especially if operated on in the intervals between attacks of inflammation. The drainage is kept up from ten to twenty-two days, changing the tube every second day.

CYSTS OF PLACENTA.

De Jong, *Monats. f. Geburtsh. u. Gynäk.*, has carefully investigated this morbid condition and studied its literature. Placental cysts are either multiple or solitary, and vary greatly in size from microscopic proportions to a diameter of 4 inches. They lie on the fetal aspect of the placenta in the basal part of the chorion. This cyst is developed by fusion of the ends of adjacent villi by fibrinous exudation after the atrophy of the syncytium. This exudation is probably secreted by the chorionic epiblast (Langhans' layer of epithelium). The inner wall of the cyst is lined with Langhans' cells, which hypertrophy and also break up and fall into the fluid contents of the cyst, their own secretion. A certain amount of hemorrhage is observed in some placental cysts. The development of placental cysts seems to be a purely local change not due to inflammation or to any constitutional disorder. The obstetrician should therefore remember that even a number of large cysts in the placenta is of no clinical importance.

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ENDOMETRITIS: HOW FREQUENTLY A CAUSATIVE FACTOR IN DYSMENORRHEA.

BY FLORENCE N. WARD, M. D.

As dysmenorrhea is the chief pelvic disturbance among young and unmarried women who come to the gynecologist for relief, it is a subject demanding most careful investigation and study. Authoritative knowledge of this distressing condition is to-day in a most unsatisfactory condition. No two authors agree as to the ætiology, pathology, or methods of treatment. Old pathological theories are being dropped, accepted classifications denied, and established lines of treatment disproved.

The old classification of ovarian, obstructive neuralgic dysmenorrhea in practical clinical work is neither correct nor comprehensive.

I have seen cases of so-called ovarian dysmenorrhea, characterized by pain in one or the other ovarian region, to have no ovarian disease whatever. Examination under an anæsthetic showed both ovaries normal, and the pathological condition to be resident within the uterus. A still further proof of the correctness of the diagnosis was the disappearance of the dysmenorrhea under the treatment directed to the uterus.

The obstructive theory is not correct, as proven by the failure of treatment directed upon that line. In spite of dilatation and splitting of the cervix, absolute failures repeatedly occur. The wearing of stem pessaries to maintain the patency of the canal carries with it such grave danger of septic inflammation with possible extension to the appendages, that such method has been discarded.

The term neuralgic dysmenorrhea is a loose and vague division that is probably meant to include all cases that cannot be comprehended in the other two. With better understanding of the conditions prevailing, and with more accurate diagnosis, so-called neuralgic dysmenorrhea will rarely be seen.

Profiting by failures in the past, having unlearned old pathological theories, we are ready to solve the problem of better methods.

Dysmenorrhea is essentially the disease of the young woman, just as lacerations, displacements, and peri-uterine inflammation are the diseases of the matron. After careful clinical observation I have come to the conclusion that in the great majority of cases the seat of the trouble is to be found in the uterus itself, and upon the endometrium of the uterus is manifest the tangible or organic change that signalizes constitutional disturbance or dyscrasia within the girl's body.

How frequently has it occurred that a young girl has been brought to me suffering with dysmenorrhea. Her history shows a constant tendency to sore throat, pharyngitis, or tonsillitis through childhood, a diminished tendency to such diseases after the inauguration of menstruation, but a severe type of dysmenorrhea is then manifest. Pelvic examination shows a normal condition of the appendages, but a profuse discharge pouring from the cervix, an erosion of the external os, and on passing the sound an exquisite sensitiveness of the endometrium. So frequently have I observed this relationship between inflammatory or catarrhal conditions of the throat and endometrium that it is not an accidental coincidence; and furthermore, more evidence shows that endometritis starts from within, as in no case has there been evidence of extension from without any bacterial invasion, there being no vaginitis, and the hymen is generally intact.

The investigations of Warbasse, who has made a careful

study of the bacteriology of chronic endometritis, is most pertinent at this point. From a study of a large number of cases, Warbasse draws his conclusions that it is no more necessary to seek for a microbic origin in chronic endometritis than in chronic degeneration of any of the glandular organs. The glandular portion of the uterus is made up of secreting epithelial cells resting upon a connective tissue stroma, just as in the kidney, liver, or the breast.

Either of these elements may become changed or increased through irritative or trophic changes without the presence of bacteria. The next step is to discover the function of this glandular structure, or endometrium. J. H. Keiffer has studied its physiology and comes to the conclusion, as the result of experimental research, that the function of the epithelial tubes of the uterine mucous membrane is not limited exclusively to the production of the secretion for the cavity of the uterus suited to its special reproductive function. There is a decided chemical alteration in the menstrual blood, and he maintains that the uterine epithelium acts here like a kidney glomerule, and that urine passing the one is analogous to albumin passing the other. The menstrual process Keiffer holds acts in two ways: preparing for the maturation of germinative elements and exciting genetic activity on the one hand, and on the other eliminating from the organism certain products of secretion that, failing their direct biochemical application in reproduction, must be rapidly discharged. If this elimination fail, if these products are not utilized or gotten rid of, they acquire a toxic property, and their absorption gives rise to the disturbances of the nutrition and the derangement of systemic equilibrium that we observe as the effect of disordered or suppressed menstruation. The endometrium of the uterus thus acts throughout reproductive life as an excretory organ, eliminating toxic products in its function of menstruation.

By thus realizing the complexity of the physiological processes that take place in the endometrium, we can readily understand how easily disturbances of functional activity may take place by sudden cold, overexertion, nervous shock, or strain, and even organic changes as the result of constitutional conditions of the patient such as a lithæmia or neurasthenia. If the glandular structure is involved, the menstrual blood is

not chemically altered as it passes through the tubules, and it retains its fibrine, permitting it to clot and distend the uterus, until by its own pressure and with much pain it dilates the cervix and escapes. Or the connective tissue of the endometrium may become hyperplastic, offering an obstruction to the free action of the glandular structure. This form is manifest in the so-called membranous dysmenorrhea. Viewed from this standpoint, the failure to relieve dysmenorrhea by a simple dilatation or splitting of the cervix is not hard to understand. As rational would it be to dilate the pelvis of the kidney to cure a nephritis.

Jung's and Bosse's investigations on the removal of the endometrium after curettage are most interesting. They prove that the endometrium is a tissue possessing an inexhaustible power of regeneration, no matter how thoroughly it may be destroyed. Microscopic investigation by Werth shows that young connective tissue is renewed within a few days after traumatism from similar tissue in the muscularis. The glands develop from remnants of pre-existing glands, the superficial epithelium from that lining the mouths of the newly formed glands, but on examination the new mucosa was in the same hyperplastic condition as before the cauterization.

The uterus in the virgin being rigid, hard, and unyielding, it adapts itself but poorly to inflammatory thickening of its interior. The reason for the relief of dysmenorrhea following childbirth is that the uterine body is not so unyielding as in the virgin state, the cervix remains more open, and the cavity is larger, allowing greater space for a thickening endometrium if the endometritis has not been perfectly cured.

The treatment that I have most successfully carried out has been, in acute cases, the indicated remedy, and, in those patients subject to throat affections the same remedy that controls the pharyngitis controls the endocarditis—bell., guaicum, mercur., and puls. The local treatment consisted in soothing applications, such as hydrastis, ichthyol, or boroglycerin, on small vaginal tampons carefully applied. During the acute process intra-uterine treatment is too painful, besides to my mind a dangerous procedure—the inflammatory process is apt to be spread through the appendages, which is an accident much to be deplored. The constitutional condition is most

carefully studied, diet regulated by avoiding excess of nitrogenous and saccharine foods. The eliminative processes are particularly controlled, that no auto-intoxication goes on, freedom from nervous strain is imposed, and much rest is required during the day, beside long hours of sleep at night.

The degree of surgical care required depends upon the case. In many cases none at all, particularly recent ones. In case there is a long, hard, unyielding, poorly developed cervix, after the inflammatory condition has been controlled, dilatation is carefully practiced, under aseptic precautions, by graduated sounds.

In the old cases, where the hyperplasia of the endometrium is marked, or membranous dysmenorrhea exists, curettage is a valuable step in the treatment. By this means inflammatory products are gotten rid of, and better drainage insured.

Finally the selection of the deep-acting constitutional remedy according to the individual peculiarities. In no disease is individualization more necessary.

In young girls with a tubercular tendency, or with a bad heredity, great care should be exercised in treating locally an endometritis that may exist. If microscopical examination reveals the presence of tubercle bacilli, I would advise letting it alone locally, and depending entirely upon remedies and general hygienic measures. They are cases peculiarly intolerant to local interference.

One case that came under my observation produced a most vivid impression. A young girl had been under local and general care for many months with a most intractable form of dysmenorrhea and endometritis. Her physician gave her a thorough dilatation of the cervix. She went home, had a pulmonary hemorrhage, and rapidly developed pulmonary tuberculosis, which ran its course in a few months. She has evidently had a primary tubercular endometritis.

The conclusions to be drawn are:

1. Simple or primary endometritis is not a bacterial disease, but a glandular inflammation of the endometrium.
2. Clinical experience shows that in the large majority of cases dysmenorrhea in young women is caused by endometritis.
3. Absolute inadequacy of treating dysmenorrhea and the coexisting endometritis by purely mechanical measures.
4. The constitutional nature of dysmenorrhea and, consequently, the necessity for the carefully indicated remedy.

PUERPERAL INFECTION AND ITS PREVENTION.

BY C. B. KINYON.

In dealing with the subject of puerperal infection and its cause and prevention we must ever keep in mind two factors—the individual patient and her condition and the poison or poisons which cause the infection. At the outset I wish to make two statements representing opposite extremes. The one is this: “Pregnancy may properly be called a nine-months’ sickness.” The statement representing the opposite extreme is the following: “Pregnancy is a physiological process.” At first thought we would naturally conclude that one or the other of these statements is untrue, but let us see whether or not there is not some truth in each of them. How few women there are, take them as we find them at the present day, who are perfectly well. This being true, it is hardly possible to find a pregnant woman all of whose functions are perfectly physiological. During the entire nine months, even in the healthiest of women, there is constantly going on within the system a rapid cell transformation. There are two processes which must be borne in mind before we are capable of fully understanding this subject. The first of these two processes which I wish to mention is known as the catabolism of cell life. This, as you all know, is essentially destructive. In other words, the higher or more highly differentiated cells are used up and thrown off as waste product in a lower form. The other process which I wish to mention is the cell changes taking place in the normal processes of digestion, assimilation, and nutrition. The excretions are toxic, but apart from these poisons produced by the organism itself, or within the organism itself, others are introduced from without. For instance, such as the salts of potash are introduced in the food; other poisons may be imbibed in the form of drink. Micro-organisms inhabiting the alimentary canal produce other poisons. In the words of Boufe, “the healthy body makes incessant attempts at suicide by intoxication.” Happily, however, there are two sets of organs whose duty it is to frustrate these attempts: organs of transformation or arrest and organs of

elimination. By the action of these two sets of organs health is maintained.

Boufe asks this pertinent question, "Is there not during normal pregnancy an overproduction of the usual poisons or a production of certain new ones peculiar to pregnancy?" This question he answers in the affirmative. The same answer is given by Bouchard, Pinard, and several other authorities. By the way, I might say in passing, that some of the most important work in all the domain of medical science during the last year has been in the study of the toxæmia of pregnancy and of its relation to the diseases of the puerperium. These various investigators, even though working independently, and the different ones proceeding along somewhat different lines, have reached several conclusions nearly identical, which makes their work of very great value. A few of their conclusions are the following: The first in order of importance is the fact that the blood contains an abnormal quantity of leucomaines during pregnancy, and the toxicity of the urine is decreased while that of the serum is increased.

Another point is this: Certain characteristics of the pregnant state favor this intoxication, among which are the following: there are fewer red blood corpuscles in the blood; the heart and the lungs do extra work; and an unusual strain is thrown upon the kidneys and the liver. All this is true even if all these organs are healthy. What happens if any one of these organs of defense is diseased or become inefficient from any cause? If they were previously diseased, this disease is aggravated and various complications arise. But independent of any diseased conditions of these organs, there are two very important functions which are almost necessarily overtaxed during pregnancy, or perhaps I had better say, the functions of two important organs—the liver and the kidneys. The results of the overtaxing of these organs are so manifest and so well known that I need say but little regarding their symptoms. In passing, a word regarding the cause of the so-called liver insufficiency may not be amiss. First is heredity, previous maladies, intestinal troubles, sedentary habits of life, and last, but by no manner of means least, the abuse of the corset. A few of the important symptoms are the following: Vomiting,

with dyspepsia and constipation. Pruritus, though an early symptom, is a bad one. Ptyalism is frequent and oftentimes very severe. The poison which causes this ptyalism is found in normal urine, and if the kidneys do not perform their functions properly this poison is retained within the system, causing ptyalism. This ptyalism with the vomiting lasting after the fourth month is a very serious manifestation indeed, and is certainly the result of toxæmia. Unless this toxæmia can be remedied, insomnia, icterus, and acute yellow atrophy complete the sequence in those cases where the liver trouble is most marked.

It will thus be seen that all these investigators have reached the conclusion that the most important organs of defense are the liver and the kidneys, and our treatment should be directed accordingly. Contrary to the usual understanding, we may have albuminuria without disease of the kidney, or we may have eclampsia without disease of the kidney. In other words, the liver may be responsible for albuminuria or for the poison which causes eclampsia. Someone may ask this question, What has all this to do with the subject of puerperal infection? My answer is, very much in many ways. There is no practitioner of extended experience but who has seen cases which did very badly immediately after confinement, and in spite of his best endeavors would live but a few days, and yet he was unable to account for such a result. It is my belief that in many of these cases this unexpected result was due to causes which had been operative during pregnancy. It is this fact which leads me to believe that the statement which I spoke of in the beginning of this paper as being extreme, namely, that pregnancy is a nine-months' disease, is not very far from the truth. The advances in bacteriology and pathology, the utilization of the newer facts of physics and chemistry, have given a great impetus to obstetric diagnosis and treatment. In most communities the time has gone by when the woman about to become a mother will allow matters to take their own course without consulting the attending physician some weeks before the expected confinement. And fortunate, indeed, will she be if her attendant is one who realizes the fact that pregnancy is more liable, as a rule, to be a patho-

logical than a physiological process. With the conviction that pregnancy is a condition bordering on a pathological one firmly fixed in his mind, he will be on the lookout for all abnormal conditions, thereby making him a much safer and more successful practitioner to rely upon. Allow me briefly to call your attention to a few tests which the practitioner should make with great care in the examination of the urine of pregnant women. In the majority of cases the urine is quite free from albumin, but the quantity of urea is diminished, while uric acid is increased in quantity, and the various extractives are present. Glycosuria is a positive sign of hepatic deficiency. Indican and peptones also are found in the urine. In healthy pregnancy, when the liver and kidneys are acting well, the toxicity of the urine is less than in non-pregnant subjects. Defective action of the liver causes an increase in the toxicity of the urine of pregnancy, while a defective renal action causes a decrease. Next it increases again—poisons are getting past the liver and being excreted by the kidney after producing some symptoms of intoxication. Lastly, the toxicity of the urine decreases again. This, of course, means that the poisons are passing both the liver and the kidney, and are remaining in the circulation, the prognosis thereby becoming serious. Albuminuria may occur at any stage.

Putting all this in a nutshell, Boufe uses the following language: "The auto-intoxications which exist normally in everyone become apparent when the organs of defense are insufficient. The normal auto-intoxications are increased during pregnancy, and the organs of defense are unusually strained at the same time. Among the organs of defense one or another may become feeble and may allow the effects of intoxication to appear. The liver is the most important organ of defense, and next in importance is the kidney. If the kidney alone is defective, uræmia will be the only result. The poisons existing in the serum are multiple and behave differently in different subjects. It will thus be seen that the ordinary examination of the urine to detect the presence or the absence of albumin is not sufficient to properly estimate the patient's condition. But it is incumbent upon every practitioner in obstetrics to watch his patient from every standpoint in order to detect and avert the dangers of toxæmia.

Having said thus much regarding the causes which, so to speak, come from within the organism, we will now turn our attention to those which come from without. A moment ago I spoke of the important work which had been done during the last year along the line of the study of the changes actually taking place within the woman's system during pregnancy. I wish now to speak of a subject which for two years has been earnestly and conscientiously investigated by several painstaking experimenters in this country and Germany and in France. Upon these investigations rests a radical change in the treatment of the pregnant woman previous to the onset of labor. What I mean to say is this: Since the general acceptance of asepsis and antiseptics in 1889, it has been very generally taught in our medical schools, and practiced in all of our hospitals, that the pregnant woman should have repeated vaginal douches of some antiseptic solution. Investigations going on during the last two years, to which I have just referred, into which I will now go more in detail, tend to prove two facts, namely, these antiseptic douches are not necessary, and, what is more, they are actually injurious, and why. There are two reasons why. The normal vaginal secretions possess the power of inhibiting the growth of any germs finding entrance to the vagina. Another reason is this: nature deposits a plug of mucus at the internal os. This plug is an impassable barrier to the entrance of germs from without. We thus are justified in saying that under normal conditions where there has been no interference the parturient canal is, and must of necessity be, aseptic above the internal os. What happens if, through the use of vaginal douches, this plug of mucus is removed? We are no longer absolutely certain that the parturient canal above that point will remain absolutely aseptic.

The bacteriology of the pregnant and puerperal vagina is a subject of vast importance, deciding, as it does, the nature of the treatment to be adopted in every case of labor, in view of the possibility of auto-infection and the necessity of prophylactic antiseptic vaginal douches. This subject has been treated somewhat exhaustively by different investigators for the last five years, but as I have already stated, it is only within the last two years that positive data, sufficient for us to defi-

nately outline our treatment, have been fixed beyond peradventure. Previous to the last two years the conclusions reached by different investigators were very conflicting, but by comparing notes with great care as to the methods of examination adopted by the different authorities, it was found that some of them introduced germs from without at the time of the examination, which of course would vitiate their conclusions. When they all adopted the same preliminary precautions and the same methods of examination, their results were the same. And all agree that the normal vaginal secretions possess the power of inhibiting the growth of all germs which find entrance to the vagina, unless it be the specific micro-organisms. There are four methods of action whereby these germs are rendered harmless: first, chemical substances in the vaginal secretions; second, antagonism between the vaginal and the imported bacteria; third, phagocytic action; and fourth, lack of oxygen. Granting that the results obtained by these different investigators are correct, the problem of the prophylactic treatment of the pregnant woman is greatly simplified. Instead of the frequent use of strong antiseptic solutions for days or weeks previous to confinement, the first vaginal douche to be given at the beginning of the actual labor. As to how this is best done, I will refer you to the paper which I read before the society last year.

Before going more into detail regarding puerperal infection, as it is generally understood, I wish to say a word regarding the demand made upon the system in the elimination of the enormous quantity of waste products. Let us bear in mind that during the whole nine months the system of the mother has not only had to furnish additional material for the nutrition of the child, but at the same time it has had to prepare itself for the trying ordeal of parturition. In order to accomplish this successfully, the uterus has increased from a little over two ounces to over two pounds in actual weight. As soon as the contents of the uterus have been expelled this great increase in the quantity of material must be eliminated from the system. It is just at this point that we begin to see clearly the serious results which are not only liable but sure to follow where any of the organs of defense or elimination are

crippled by disease. What is more, it is our duty to aid nature in disposing of this waste by keeping the bowels and kidneys free. This can be done best by mild means, and then the system is in a condition to respond promptly to the simillimum.

There are two other factors to be taken into account immediately following labor. The patient is, as a rule, much exhausted, and the other and far more important factor is that even in a normal case of labor there is more or less injury, in other words, more or less raw surface in the parturient canal. And this raw surface is but so many open mouths to absorb any poison which may come in contact with it. It is well for us to look upon the parturient canal as a wounded surface which must be protected from contact with poisons of every sort. With this idea in mind you can readily see why all up-to-date teachers and practitioners in obstetrics insist upon thorough asepsis and antisepsis, by having all injured surfaces repaired and by strict enforcement of the so-called occlusion pads. For it is only by the strictest attention to details in both these directions that the woman is sure to pass through the lying-in period without becoming a subject of puerperal infection. You notice I use the term puerperal infection, for the term puerperal fever is not good. It is my purpose to bear in mind both putrid intoxication and pure sepsis, thereby covering the same ground as the term puerperal infection. It is not possible in private practice for us always to differentiate the two conditions. In hospitals, where the microscope and all other means of diagnosis are at hand, it is possible to differentiate, but there is one rule that will answer all clinical purposes in private practice. A non-infected wound presents a good appearance in spite of the fact that the lochial discharge may be offensive: the base is red and the surrounding tissues are not swollen or changed in character. Infected wounds are covered with a grayish white, unhealthy-looking membrane, which may be gray or brown, if there is also a decomposition going on.

There are over forty different organisms which have been isolated and cultivated that may, and have repeatedly caused, some form of puerperal infection, but I will not go into detail regarding these different varieties, but simply give you a

classification as a working basis. This classification is given in the order of their frequency, not as to their severity: (1) Resorption fever of the puerperium. (2) Endometritis and cetritis puerperalis. (3) Parametritis puerperalis. (4) Perimetritis puerperalis. (5) General peritonitis. (6) Lymphatic form of puerperal fever. (7) Metrophlebitis accompanied with thrombophlebitis. (8) Pyæmia. (9) Endocarditis puerperalis. (10) Puerperal erysipelas. (11) Gonorrheal diseases of the puerperium. (12) Scarlatina puerperalis. (13) Tetanus puerperalis.

A general distinction between putrid and septic endometritis is this. In putrid metritis the mucous membrane is necrotic, and beneath this is a cellular infiltrated zone beyond which no micro-organisms are found; in other words, this is a protective membrane. It is true that in the lighter forms of septic endometritis the same picture may present, but in the severer form this cellular zone or protective membrane is very thin, and the micro-organisms have penetrated it. The ætiology of the thirteen varieties above mentioned is very evident. The first and second may be due to putrefaction of remains left in the uterus, or non-specific slight ulceration, or to the ordinary micro-organism. All others, except the last four, which are specific in their nature, may be due to any one of the forty varieties of micro-organisms.

The prevention and treatment of childbed fever will always be the most important study in obstetrics. In obstetric practice, just as in other surgical work, the bewildering and irksome technique of the early antiseptic era has suddenly given way to the clear principles of asepsis. The last year or two have been especially characterized by reports from all quarters that emphasize the necessity for abandoning the notion that in the unstinted use of germ-destroying solutions puerperal infection may be avoided or successfully treated. From the results with improved technique in bacteriological manipulations in order to remove every possible source of contamination, it is shown that the vaginal douches before and after labor are not indicated; in other words, where asepsis is perfect these douches are not necessary, and, as I have already stated, are actually injurious, because they remove the natural

vaginal secretion, which itself has bacteriological powers, and because they lessen the vital resistance of the tissues and remove the barriers which nature has placed for the protection of the woman.

As I covered the ground of the treatment of these cases in my paper before this society last year, I will not now go into detail, but as my views have undergone some change during the last year, it is but just to myself that I should speak of one or two points in the treatment. The first I wish to mention is the increased confidence I have in the use of normal salt solution used very freely. I use this in two ways: by a good, generous enema, and by injection in the cellular tissue underneath the breasts. This latter point I really insist upon, for I find that it is much more satisfactory in two particulars. More can be given, and it is more readily absorbed, and thereby more effective. One other point which I wish to mention is my extreme caution in the use of the curette. During the last year I have had several cases where previously I would use the curette very freely, and this year I have used it with extreme caution, placing my main reliance upon removing only the tissues that were loosened, and continuing the treatment by a thorough swabbing out of the uterus with iodine and carbolic acid diluted with glycerin, following this by packing with five, or perhaps more frequently ten, per cent. iodoform gauze. This treatment would be renewed each day. What has given me such great faith in this method of treatment is the results obtained. As far as I am able to judge, I have seen some as severe cases this year as I have ever seen, and yet I have not had a single death either in my own practice or in counsel where the above treatment was followed. To be sure, I have continued to rely upon the homeopathic remedy, and but one remedy has been added to my list, namely, *echinacea*. This has given me the best results, by putting a teaspoonful of the tincture in four ounces of water, and of this solution give a teaspoonful every hour, until the symptoms of putrid intoxication are controlled. Thus far, it has served me very well indeed.

A PECULIAR CASE.*

BY H. C. VAN BUREN, M. D.

Mrs. W., aged twenty-three, American. Family history good; personal history good, until during the last two or three years. She had suffered from pain, tenderness, and occasional enlargement of the right side of abdomen. Menses regular and painless. Some leucorrhœa: always a "bearing-down feeling" when standing, which her business of silk-weaving caused her to do all the time. For about three years she had noticed that riding in the cars always caused nausea and frequently vomiting. She was married in May, 1900; menses regular in June. The day before time for July period she assisted to carry a lounge down two flights of stairs, she being at upper end, hence leaning over and pulling at same time.

The following day, being Sunday, she and husband went for a walk. While out she was taken with fearful cramps and flowing. They called in a doctor, who said she had had a miscarriage. He prescribed, but flow did not cease. How many calls he made I do not know; this was in July. Early in August she recovered sufficiently for them to go to Brooklyn to board, but she continued flowing all the while; sometimes a regular hemorrhage, sometimes only a little. August 13 I was called, found patient to be slight, tall, fair-haired, blue-eyed, very pale, and extremely weak. There was some tenderness of right side of abdomen, which seemed slightly enlarged. Digital examination revealed a patulous os uteri, a bad ante flexion, but apparently no abnormal growth, flow dark-colored, but not offensive. Manipulation caused nausea and retching. She had a bad cough, hollow and harsh; expectoration frothy and copious; chest very flat. Patient was emaciated; no appetite, great thirst; could not sleep; seemed dull, almost to stupidity, which was increased by deafness; there was no elevation of temperature; pulse 68. R. Bell, china.

August 14.—Patient feeling much better; no fever; pulse

* Read before New York State Society at Albany, February 12, 1901.

weak—but 75. Speculum examination revealed only an eroded, gaping os uteri, much less flow. R. Remedies continued.

August 16.—Patient sitting up, feeling decidedly better every way. R. Remedies continued, less often.

August 18 to September 8.—Away on vacation.

September 11.—Patient called at office; said she was “feeling real well, only weak”; had not seen any flow for over a week. Abdomen was increasing in size in the center only.

Made an appointment for her to call and have a careful examination to determine stage of pregnancy, if such existed.

September 21.—I was hastily summoned; found patient greatly excited. She said she had passed an enormous mass, and felt so faint afterwards. Examination of the mass revealed a partially decomposed placenta, and a large quantity of coagulated, dark-colored, offensive blood. There was no elevation of temperature; pulse very weak and quick, but only 80. There was a very little flowing; no pain; some soreness over right ovary.

In center of abdomen was an immense protuberance, resembling an inverted two-quart bowl, hard and symmetrical in outline. R. China.

September 22.—Patient feeling better; but this hard enlargement still there. Examination revealed what seemed to be a placental mass and membranes partly extruded, and decidedly adherent superiorly.

I explained to her it would be wiser to give a little chloroform and curette the uterus.

Let me state there were absolutely no conveniences for the proper performance of such an operation.

I obtained assistance. Chloroform was administered with-out difficulty. I succeeded in detaching some placental pieces, strings of membrane, quantities of clots, but when I attempted to use a curette it slipped as if on a greased surface, and did absolutely no work.

Before this I found that this uterus seemed to be divided into two sections or compartments. Whether due to an hour-glass contraction or abnormal development, I have never positively settled in my own mind. In the upper section there seemed to

be lodged another mass, but of different consistency. While debating as to method of removal, there occurred a rupture of a membrane or sac, and immediately there poured forth a gelatinous mass like frog spawn, and simultaneously the enlargement of abdomen decreased. By persistent manipulation I removed about a quart of this muco-colloid substance, and finally I detached a sac or membrane, as you would a placenta.

I used a plain hot douche, and washed out quantities of this substance. Then a two-quart douche, in which I put one-half ounce Wampole's antiseptic solution, followed this by a small plain douche. Every time she coughed or retched there would be a gush, and a quantity of this peculiar substance would appear. It seemed impossible to remove it. At the same time the enlargement of abdomen was rapidly disappearing.

In examining uterus there was still plainly to be felt that bridge-like band separating the body of the uterus into two sections.

Despite the fact that there was no trained nursing in this case, she being many hours alone every day, she made a fine recovery. Once I found her in a high fever following a chill, but she had been fed two plates of rich soup; nature had rebelled. Again, due to worry and neglect, she had a bad spell; high fever and headache, but this quickly yielded to a few doses of *ignatia*. I dismissed her September 28.

October 31 she called at office, said she was perfectly well, doing her own housework.

What was that gelatinous substance, and whence did it come? Was it retained in uterus because of its malformation or because of attachment of placenta in lower segment of uterus?

She had been flowing more or less constantly from July 7 until September 22, and still there was a large placenta. When did she lose the fetus? Was there any, or was it a false conception?

Discussion.

DR. D. G. WILCOX: Referring to the communication just read, "A Peculiar Case," I think it is entirely a question of mole pregnancy complicated with uterine fibroid. Where the

uterine walls undergo degeneration and pregnancy continues to delivery, there is an arrest of circulation through the uterus, so that the ovum may develop for a period and then cease, but that does not interfere with the development of the placenta. That will go on, and perhaps even overdevelop because it is not supporting the fetus. It will go to a certain extent and then be delivered. As it cannot be delivered naturally, that is, intact, because of the interference to natural uterine contraction due to fibroid degeneration, it must of necessity come away piecemeal, as in this case.



SYMPTOMS AND TREATMENT OF CRIMINAL ABORTION.

BY H. E. KINYON, M. D.

In presenting this subject to you I will classify it under two heads, first, those caused by the administration of drugs; second, those brought about by the use of instruments. Not much time need be given to first of these classes, as it is not very often that enough of a drug can be taken to produce the desired effect without producing other toxic symptoms that cause the discontinuance of it; or, if persisted in, show by these same symptoms what is causing the trouble. The second class can also be divided into two classes: first, those that show what may be termed home-talent treatment—where the woman herself, or someone just as ignorant of the anatomical parts, attempts an operation; and, second, those caused by a professional abortionist.

The first is the one we most often meet, and cause us the most trouble, for it is almost incredible what desperate measures a woman will attempt, and what risks she will take, to bring on a miscarriage. Hairpins, wire, pieces of stick, and other surgically unclean instruments are used in the attempt.

The first thing I notice when called to a case of this kind is the mental condition of the patient: if she seems to be expecting a miscarriage more than the symptoms seem to justify, and if she has reasons all ready that would make her miscarry. In this class we are apt to find the membranes broken, or at least punctured, and there will be oozing of the fluid from the uterus, with probably no flow of blood; there is usually a rise in temperature, a symptom that I think I have never met in uncomplicated cases of miscarriage that were not induced. In most of these cases, where the membranes are ruptured, there is no flow until after the passage of the fetus, as the membranes often do not loosen from the uterine walls. In these cases there is often found an inflamed and roughened state of the mouth of the uterus. This condition can often be felt with the finger as well as seen with the use of the speculum, and is probably caused by the bungling use of whatever instruments

were used. It is well also to explore the culs-de-sac, as often injury is done there, even to pushing instruments through into the abdominal cavity by the zealous but ignorant would-be abortionist. The mere fact that a previously healthy woman has a miscarriage is a suspicious circumstance, as a healthy woman very rarely aborts; that is, the ordinary woman away from the large city, where we do not have syphilis, etc.

Many women do abort time after time, at about the same period of pregnancy, but as to most of these, if they were traced back in their history, it would be found that the first ones were induced, until a state of irritability or chronic inflammation was set up that would not tolerate the pregnant state. The fever that we often find accompanying these cases, and coming on before the miscarriage, is caused, I suppose, by the carrying in of septic material by the surgically unclean instruments used.

In the cases that I have had following the professional abortionist, great care seemed to be taken not to puncture the membranes, and I have often found a little bougie about six inches long and about as large as a No. 6 catheter that had been insinuated between the uterus and membranes, and just protruding from the os. Other times I have found the os filled with some expansive material, that was tied down small by an absorbable cord, which was either cut when in place or left to break of its own accord when sufficiently softened. Soft rubber catheters are also used, of small size, and coiled up in the os. These methods cause an irritation and bring on contractions in two or three days. These cases are usually about eight or ten weeks along, and often come away without the breaking of the membranes, if left to themselves. The flow of blood is usually very profuse for a few minutes after the expulsion; but as the membranes are all loosened at once, the flow stops quickly, and does not start again, which is quite opposite to the other cases, where small parts of membrane may be still attached to the uterus.

A few words on the treatment of the after-effects or complications, and I will close. In those cases where the fever begins a few hours or a day or two after the contents have come away without operation, an inter-uterine douche of sterilized hot water, or with the addition of a dram of carbolic

acid to a quart of water, and a few doses of aconite, the 3d, if nothing is more clearly indicated, will stop many a case of fever following miscarriage. *Veratrum viride* and *bryonia* in the beginning have served me well. The uterus should be emptied thoroughly of its contents under strict antiseptic precautions, and either washed out or wiped well with iodoform gauze. After this the temperature usually declines, but it is well not to be deceived into thinking everything is all right, as it may be that, although this focus has been removed, the inflammation may have extended to the substance of the uterus, and the return of the fever quickly or gradually shows whether it is to be an acute peritonitis, that will take the patient off in from four to seven days, or the slow septicæmia that runs its course in from thirty to sixty days, with complications of endocarditis, joint affections and various swellings of the glands, paralysis of the bowels, etc.

The treatment of these cases require the most careful thought, and is at first, as above stated, to have the uterus cleared entirely of its contents. If that is well done once, there will be no unnatural discharge and no bad odor. After that my opinion is that it is purely a medical case, and the less douches, operations, etc., the better for the patient. If there be pus formed where it can be drained, it should be evacuated, if possible; but if not sure it can be reached, it is best not to try, for the entrance of the air may cause an abscess where one did not exist. But when the case has gone on in spite of first care and remedies, the most careful searching of the *materia medica*, together with the best of nursing, too often fails in bringing about the desired result, and we are forced to find ourselves beaten in the end. I well remember one case where the utmost care was taken to have the uterus thoroughly clean and aseptic, where the fever disappeared, where there was no pain or soreness following, no odor to the discharge, patient cheerful and helpful in every way, and yet the temperature gradually increased day by day, appetite good, bowels regular, and everything to indicate recovery except the fever. Two physicians beside myself attended her, and the most careful consideration of her case was given, but it went on in spite of us, and ended in death in the seventh week.

PERSISTENT METRORRHAGIA.*

BY J. I. PARSONS, M. D.

There are certain well-recognized causes for metrorrhagia, such as fibro-myoma, polypus, retained products of conception, diseased appendages, cancer, etc. These cases are usually recognized and their treatment is fairly well defined if some differences of opinion are allowed for. It is not my intention to discuss these obvious cases now, but to consider another class of case which is not very uncommon and about which very little is said in the text-books—I mean metrorrhagia which is not brought about by any of these causes and for which, in fact, there is no obvious cause. Even when we examine these patients under an anæsthetic we fail to find anything wrong in the pelvis, and when we dilate the uterus there is nothing apparent to account for so prominent a symptom.

Under these conditions the indication is to use the curette. If the endometrium which is scraped off is found to be thickened the curetting does good and the metrorrhagia usually stops, at any rate for some months. On the other hand, in a certain number of cases we find very little thickening of the endometrium, and then the metrorrhagia will often persist and perhaps be worse after the curetting than before. In such cases I have been able to stop the hemorrhage permanently by the use of the constant current. I wish to advocate this method of treatment in preference to the risk and mutilation involved by hysterectomy. As I have never removed the uterus for this condition I cannot say much on the pathology of the subject beyond some observations on the morbid anatomy of the endometrium obtained by curetting.

With this first class of case, which is the most common and which usually gets well after curetting, we find under the microscope that the endometrium is considerably thickened by an excessive glandular proliferation. With the second class of case, which I am more particularly dealing with and where the metrorrhagia persists after curetting, we find a prolifera-

* Read before the Harveian Society of London on February 17, 1901.

tion of the connective tissue in the endometrium, while the glands may be decreased in number. The condition, in fact, corresponds to that described by Wyder of Berlin as "interstitial endometritis" and which he found to be present in the endometrium of bleeding myoma.

When curetting, the use of ergot, and other methods of treatment failed I decided to try the effects of the constant current before doing hysterectomy. As I have seen some of the worst cases of hemorrhage from fibro-myoma become perfectly regular and remain so for years from the use of electricity properly applied, I expected and obtained just as good results in these cases. The similarity in the morbid condition of the endometrium to myoma rendered it probable that electricity would be effective. Another reason in its favor was that the cavity of the uterus is not distorted in shape as it often is in fibro-myoma, consequently it is much easier not only to pass the electrode but also to apply it thoroughly to the cavity of the uterus. In the two cases which I bring before you as examples the hemorrhage was completely stopped by the constant current, although curetting and all other treatment had entirely failed.

The applications are made by means of a platinum electrode, with a movable insulating sheath. This is passed up to the fundus of the uterus, while the insulating sheath is adjusted so as to reach just beyond the internal os. As the bleeding comes from the body of the uterus it is absolutely essential to success to see that the current comes off in the body of the uterus and not in the cervix. A clay pad is placed on the wall of the abdomen just above the pubes and connected to the negative pole, while the intra-uterine electrode is connected to the positive pole. At the first application only a mild current should be used, not more than fifty milliamperes, subsequently it can be slowly raised until the galvanometer indicates from seventy-five to one hundred milliamperes. This is kept on for ten or fifteen minutes. The patient need not lay up during the treatment, and except in extreme cases can come to her medical man's house for the treatment. The applications are made twice a week. An antiseptic vaginal douche should be used every day, morning and evening. I need hardly say that the

electrode must be absolutely clean and should be placed in an antiseptic solution like any other instrument before being used for operation.

The number of applications required will vary according to the severity of the case. Whatever the number required to reduce the loss to normal proportions, half that number must in addition be given in order to produce a permanent result. The treatment is suspended for a week during menstruation, and if at the end of that time the loss has not stopped it should be discarded and the treatment continued. In some of these cases where the loss is persistent and never stops there is some difficulty in knowing the proper date for menstruation. By closely questioning the patient we shall generally elicit the fact that for one week every month the loss is greater than during the other three weeks. We may take that as an indication of the normal time for menstruation. As a rule no improvement begins until several applications have been made, then the loss begins rapidly to diminish. With a current of seventy-five milliamperes properly applied and slowly raised the patient feels very little, if any, pain. The sensitiveness of the uterus which is usually present at first goes off after two or three applications.

Case I.—A woman, aged thirty-two years, was admitted into the Hospital for Women on December 17, 1898, complaining of profuse loss at the periods, which had so weakened her that she was unable to earn her living. She had had one child five years before, and up to that time there was no difficulty with menstruation. Since the birth of the child the loss had gradually increased until she used from thirty to forty diapers, while the interval was less than formerly. There was practically no pain during menstruation. She had never had a miscarriage. Her general health was good, except that she felt very weak from loss of blood and was incapable of much exertion, although she used to lead a very active life. On examination the heart and lungs were found to be normal. The right kidney was slightly movable. The uterus was found to be in position and not enlarged, and the mobility was unimpaired. The cervix was slightly eroded, with more discharge than usual. The appendages appeared to be healthy. On December 22, under

ether, the uterus was curetted and swabbed over with solution of perchloride of iron and tincture of iodine. On the 24th the loss still continued. On the 29th the loss stopped. On January 9, 1899, menstruation began, when the loss was worse than before, and showed no signs of improvement. On February 16 the first application of the constant current was made, sixty-five milliamperes being used for fifteen minutes, with the positive pole in the uterus. In all twelve applications were made, the strongest current used being one hundred milliamperes and the weakest current fifty milliamperes. In April for the first time for many years the patient had a normal period. It lasted only four days, and she only used ten diapers. She has remained up to this date perfectly well; she is in good health and is able to earn her living, and she never loses more than normal.

Case II.—A single woman, aged thirty-five years, was sent to me by Dr. J. T. Jones, in July, 1899. She had never had a child or a miscarriage. In 1898 she began to lose more at the periods, and also had some loss between them. This continued to increase until she found it necessary to have something done. She was taken, in October, 1898, to one of the leading specialists in London, who curetted the uterus. The loss stopped for two weeks and then went on as before. She waited for eight months, but as there was no improvement and she was becoming worse, she consulted Dr. Jones, who brought her to see me. I found her a stout, healthy, well-grown woman, who had enjoyed good health until the metrorrhagia began. On examination the uterus was found to be in position and to be normal in size, the sound passing for two and a half inches without pain. There was no tumor to be found and the appendages were normal. There was no erosion of the cervix and very little white discharge. The bowels were sometimes confined. Twenty-three applications of the constant current were made with the positive pole within the uterus, with an average strength of seventy-five milliamperes, for ten or fifteen minutes at a time. The loss had completely stopped after fifteen applications. Experience, however, has taught me that in these cases, as well as in hemorrhage from fibro-myoma, it is necessary after the loss is stopped to go on with the applica-

tions for a month or so if we wish to produce a permanent result. After the treatment was finished menstruation ceased for three months and she had no loss at all. Since then she has been quite regular and loses very little.

I will not weary you with any more cases, as these two are typical of the condition. The cause appears to be obscure. I was at one time inclined to think that the disease dated from a miscarriage, but the patient in Case II. had never had a child or a miscarriage. There is, however, one factor in common with all these cases—viz., that the patients are either single or that, if married, they have remained sterile for some years. Now this is what we also find precedent to the appearance of fibro-myoma. In fact there is an excess of fibrous tissue in the walls of the uterus although there are no actual fibroid tumors.

The constant current would appear to stop the hemorrhage by means of its caustic action on the endometrium and the hemostatic effect of the positive pole. If a small current is applied with two fine needles to the web of a frog's foot and watched under the microscope, coagulation and stoppage of circulation can be seen in the capillaries round the point of the positive needle, while at the negative pole nothing is to be seen beyond a collection of hydrogen bubbles. In addition to this hemostatic action the muscular wall of the uterus is toned up by the current just as much as the voluntary muscles are when electricity is employed to restore their tone after temporary paralysis. In connection with this it may be worth while to mention that several patients have remarked to me voluntarily that after the course of electricity the constipation from which they had previously suffered had disappeared, although the treatment had been given solely with the purpose of stopping menorrhagia.

There is one other course of menorrhagia which I should like to refer to—viz., retroversion. On several occasions patients have been brought to me for menorrhagia which persisted after curetting, and having found the uterus retroverted I replaced it and kept it in position with a well-fitting Hodge pessary. At the end of two or three months the menorrhagia disappeared without anything else having to be done. There

are, of course, many cases of retroversion which give rise to no symptoms and require no treatment, but, on the other hand, there are also many cases where the condition makes a woman's life a misery to her. She complains of constant pain in the back, worse on walking, and if there is much standing with bearing-down pain. During menstruation the uterus is very tender and she can hardly bear to be touched, and she often has a sickening pain when the bowels act. In addition to this in about thirty per cent. of these cases there is menorrhagia. To my mind, if there is no erosion and nothing else to account for the hemorrhage the first indication is to replace the uterus in its proper position and keep it there. With the large majority of patients the menorrhagia will then cease in two or three months; if it does not then curetting should be done. But I maintain that it is of no use to curette a retroverted uterus for menorrhagia unless we keep the uterus in its proper position afterwards.



THE INFLUENCE OF BACTERIOLOGY ON OBSTETRICS AND GYNECOLOGY IN THE LIGHT OF RECENT INVESTIGATIONS.*

BY JAMES JOHNSTONE, M. B., F. R. C. S.

A short retrospect of the history of bacteriology during the past century, introduced the subject.

I would like to draw attention to the advances made within the last few years in the bacteriology of obstetrics and gynecology. I foresee as a result of the same that there will be yet further changes and, I trust, further progress in the treatment of labor and of diseases peculiar to women.

ANATOMY OF THE GENITAL TRACT.

Let us briefly consider the anatomy of the genital tract and some of its peculiarities as bearing on function and disease.

* Abstract of a paper read before the West of England Therapeutical Society, February, 1901.

The vagina is not, as usually depicted in our text-books, a voluminous space filled with air, but is closed, its walls being in close apposition and the exclusion of air being complete owing to the layer of secretion which covers its surface. There are no glands in the so-called mucous membranes. It is simply a true skin such as that on the exterior of our bodies, but with this difference, that its upper layer of stratified epithelium is thinner, softer, and kept constantly moist by the secretion. At the entrance to the vagina, near the posterior commissure, are the orifices of the glands of Bartholini. These we might compare to a pair of sacs with very small openings into which it is easy for infection to penetrate, but out of which it is difficult to eradicate the same. At the entrance of the urethra there is a similar pair of glands, though smaller in size, namely, Skene's glands, which open, one upon each side of the urethra by a very small orifice. These also play an important part in the locking up and hiding away of infection after all else has been apparently rendered sterile.

In the vault of the vagina is situated an opening, the os exterium uteri, where the surface of stratified epithelium passes abruptly into the mucous membrane of the cervix uteri. It has just been stated that there are no glands, mucous or otherwise, in the vagina, but in the cervical mucous membrane they abound and also throughout the uterus. Glands secreting mucus are particularly abundant throughout the whole length of the cervical canal, and the latter, under normal conditions, is constantly filled by a plug of tenacious mucus. To these conditions reference will be made more particularly later on. The special points in connection with the anatomy of the genital canal are, therefore,

- (1) The presence of the glands of Bartholini and Skene.
- (2) The vaginal lining is not mucous membrane and contains no mucous glands.
- (3) Mucous glands are abundant in the cervix uteri.

THE NATURE OF THE VAGINAL SECRETION.

This subject has been more particularly studied by Döderlein ("Das Schiedensecret und seine Bedeutung für das Puerperafieber") in his admirable monograph. He has, after ex-

amination of a large series of cases, classified the secretion under two heads: (1) Normal; (2) abnormal. The normal secretion, macroscopically, is of a crumbly white material of the consistence of curdled milk, without the admixture of mucus. This covers the surface and cracks of the mucous membrane with a white-gray layer. Its reaction is intensely acid. Microscopically it contains epithelial scales, a few mucous cells, polynuclear leucocytes, and the vaginal bacillus especially described by Döderlein. Occasionally, by cultivation, are found along with the bacilli certain forms of yeast and other saprophytic micro-organisms. The pathological or abnormal secretion, according to Döderlein, is not of the above characters. It is thin, watery, whitey-yellow to green yellow, even so abundant as to run out of the vagina (fluor albus). It covers the walls of the vagina with a greasy, thick, yellow layer. It is often full of gas bubbles. It is never so strongly acid as the former, but, on the contrary, is found neutral or alkaline. Microscopically, it contains squamous epithelium, is rich in pus corpuscles and a quantity of micro-organisms of various kinds. By cultivation and injection may be recognized certain pathogenic micro-organisms.

THE ORIGIN OF THE SECRETION.

As there are no glands to be found in the mucous membranes of the vagina it is difficult to account for the presence of the secretion. Various theories have been put forward. Some have suggested that it is due to the secretion of the glands of Bartholini, but as these are situated at the outlet it is impossible that their secretion could reach to the vault. The glands of the cervix uteri have also been suggested as the source of the secretion, but as the nature of the material from this source is particularly rich in mucus they cannot account for the normal secretion. Evidently it is produced as an exudation from the stratified epithelial surface and is not a true secretion, i. e., does not emanate from glands.

The acidity of the secretion has been found by Döderlein to be due to lactic acid, and has in many cases been estimated in terms of a mineral acid. This lactic acid has been suggested by Döderlein as the cause of the relative absence of bacteria in

normal secretion, since ordinary bacteria require for their growth an alkaline medium. The vaginal bacillus (Döderlein) thrives, however, in the acid medium. Another characteristic of the vaginal secretion is what is known as its positive chemiotaxis. If a portion of the secretion is brought into the neighborhood of leucocytes, it is found that they move towards and accumulate near it. Hence the vaginal secretion in the neighbourhood of the cervix uteri attracts large numbers of leucocytes, which become mixed with it. These leucocytes being active, probably assist in keeping down the growth of bacilli. They act, according to the Metchnikoff theory, as phagocytes.

THE BACTERIOLOGY OF THE VAGINAL SECRETION.

It has been found by Döderlein that in normal secretion there are practically no bacteria except the especial vaginal bacillus. Other observers, however, do not find results quite similar to his. It is certain, however, that the most common bacillus present is Döderlein's vaginal bacillus. It occurs in two varieties: (*a*) *mobilis*; (*b*) *immobilis*; the former being provided with cilia, the latter being without. Other micro-organisms which are found in the secretion are: streptococcus, staphylococcus (several varieties), gonococcus, bacterium coli communis, a diphtheria-like bacillus, yeasts, tetanus-like bacillus, etc. It is found that at various stages of life the bacterial contents of the secretion vary exceedingly. In the newborn no bacteria are found in the secretion. In a virgin of sixteen years many bacilli may be found. In the normal secretion of a pregnant woman there may be a pure cultivation of the vaginal bacillus. In a pathological secretion of a pregnant woman may be found pus corpuscles, with bacteria and cocci of various kinds.

According to Döderlein normal secretion, containing only the vaginal bacillus, cannot be a possible source of infection in puerperal fever. On the other hand, in abnormal secretion the presence of pathogenetic streptococci or bacilli secretion can be a cause of puerperal fever. Acting on this, Döderlein advises in lying-in hospitals a separation of cases with normal secretion from those with pathological secretion. This may

be done by an inspection with the speculum, the testing of the reaction on blue litmus paper, and by a microscopical examination of the secretion.

CERVICAL SECRETION AND ITS NATURE.

The nature of the cervical secretion has been specially studied by Walthard (*"Bacteriologische untershungen des weiblichen Genitalsecrets in Graviditate und im Puerperium"*), and the following are the results of his researches. He found in making microscopical and bacteriological examination of this secretion that the cervix uteri might be divided into three zones, with different characters of secretion in each.

Zone 1 extends from the os externum as far up the cervical canal as cervical laceration usually reaches, i. e., a few millimeters. The secretion of this zone is found microscopically to contain squamous epithelium, leucocytes (polynuclear), the micro-organisms (derived from the vagina), and mucus. Its color is white to yellow and is evidently a mixture of true vaginal and cervical secretion.

Zone 2 is very much narrower in its extent. It contains a great many leucocytes. Hence, it has been called the wall of leucocytes. In addition, there is clear mucus, a few scattered cylinder epithelial cells, but no micro-organisms.

Zone 3 is the largest, reaching throughout the rest of the cervical canal, and is found to contain no bacteria, no leucocytes, much clear homogeneous mucus, and a few cylinder cells. Walthard therefore concludes that the bacteria of the vagina are unable to penetrate the cervical canal, and so reach the interior of the uterus, on account of the presence and composition of the cervical secretion. He looked upon Zone 2 as the bar to the progress of bacteria. The method in which this bar acts is probably: (1) because mucus is a medium in which germs cannot grow and increase; (2) the movement of the mucus is constantly towards the vagina; and (3) the positive chemiotaxis of the adjacent secretion calls forth in Zone 2 and Zone 1 an abundance of leucocytes which, acting as phagocytes, destroy bacteria and prevent bacteriological infection of Zone 3 and the uterine endometrium. Physiological asepsis lies therefore in Zone 2. It should be the aim of the gynecologist

and obstetrician to preserve this barrier intact. Any alteration of its normal conditions will tend to depreciate its value as a barrier.

THE CHANGES IN THE VAGINAL DISCHARGE DURING LABOR
AND PUERPERIUM.

(1) The "waters" or amniotic fluid is alkaline, and therefore presumably a good medium for the growth of bacteria. But it is deficient in albumen and contains, therefore, very little nourishment for bacteria. Experiment elicits the fact that it is unfavorable for the growth of bacteria. Also, it is found that through the flow of the "waters," after rupture of the membranes, the bacterial contents of the vagina are lessened, but not entirely got rid of; that is to say, the vagina, after the rupture of the membranes, still contains bacteria.

(2) The Lochia.—After birth, as a rule, the lochial discharge is sterile in those cases where no intra-uterine examination has taken place. Where digital examination has occurred, the probability is that the lochia contain bacteria. Streptococci and other pathological germs may, however, gain entrance to the interior of the uterus by other means than digital examination. The introduction of air, according to some observers, occurs spontaneously. The use of instruments and the occurrence of other intra-uterine interference will permit ingress of germs.

We may conclude therefore (1) that during pregnancy bacteria are present in the vagina and first zone of the cervical canal. They are absent above the second zone and from the uterine cavity; (2) that during normal labor and afterwards the uterus is not infected unless under unusual conditions described under the heading of auto-infection. Moreover, the bacteria in those portions of the genital tract where they naturally exist are lessened by the action of the amniotic flow. Conversely it may be assumed that any condition whereby the flow of the amniotic fluid is interfered with, as happens in early rupture of the membranes ("dry labor"), the number of the germs would increase; (3) that during the lying-in period or puerperium the uterine cavity again becomes closed by the mucous plug against the spontaneous entrance of germs. The

conditions are therefore the same as during pregnancy. It may be noted that the lochia do not dissolve the mucus. Also it has been noticed that the number of germs in that part of the genital tract usually containing them is small at the beginning of the puerperium but increases towards the end.

PATHOGENESIS DURING THE PUERPERIUM.

The pathogenetic organisms found in the genital canal during pregnancy, labor, and the puerperium are streptococci, staphylococci, gonococci, and the bacterial coli communis. Of these the most troublesome is the streptococcus pyogenes. It is found in the majority of puerperal cases, and particularly in those cases where no digital examination or other possible means of uterine infection has obtained. The streptococci normally present in vaginal secretion are found to be harmless and to have no effect on sound tissue. They grow indifferently in amniotic fluid, causing no smell. They also grow in lochial discharge, without smell and with a slight increase of virulence. They will not grow in the tissues of healthy animals, but do so when the tissues have been injured or interfered with. A great many experiments have been made in connection with this phenomenon. It opens up the possibility of harmless streptococci, existing in the vagina, becoming under certain suitable circumstances virulent and possible of producing varied degrees of pathological conditions such as slight rise of temperature on the one hand and acute forms of puerperal infection on the other. This has been called auto-infection. It accounts for those cases where all ordinary sources of infection have been excluded and there are found the effects of infection in some degree. The method of studying this matter is by cultivating a harmless streptococcus from the vagina in the various discharges and injecting it into the tissues of animals. Where it is wished to produce an alteration in the tissues of the animal, the latter is subjected to some injury, preferably by obstructing the venous return and thereby producing stasis in the circulation. A harmless streptococcus injected into the tissue, thus artificially congested, acquires a certain amount of virulence. This can be increased by growing the germ upon a lochial discharge or other suitable media

and again introducing it into diseased tissues. By thus lowering the resistance of the tissues and increasing the virulence of the streptococcus, a strain of streptococci can be obtained capable of producing considerable infection. Applying this to obstetrics and gynecology it may easily be understood that bruising and laceration of the parts during labor or any want of return to the normal condition and position of the uterus and adjacent parts may predispose to induced virulence in harmless streptococci, thereby inducing auto-infection.

Streptococci act in one of two ways:

I. As saprophytes, when they simply grow and produce a certain amount of poison as a by-product. The absorption of this poison gives rise to toxæmia or sapræmia. The factors which lead to the symptoms associated with toxæmia may be: (a) a difficulty in the escape of the lochia produced by (1) acute ante- or retroversion of the uterus; (2) retention of membrane or placental tissue; (3) delay during birth by too early rupture of the membranes and the resultant dry labor; (b) infection of the uterus, occurring in connection with these foregoing conditions, either (1) by direct contact with the finger, instrument, or hand, and (2) by spontaneous invasion.

II. As parasites (with virulence) as a result of the lowering of the vitality of the tissues, as by injuries during birth, pressure and laceration of vagina and uterus. Under such conditions puerperal fever in its mild or severe form obtains.

PROPHYLAXIS.

Having noted these various facts in regard (1) to the natural freedom from bacteria of the upper portion of the genital tract; (2) to the existence of certain factors which tend to preserve this sterility, and (3) to various conditions which tend to detract from it, we are now in a position to discuss their bearing upon everyday practice in obstetrics and gynecology. To begin with, it may be taken for granted that the usual disinfection of hands, of instruments, and of the patient herself is indispensable, and the more rigorously and thoroughly this is carried out, the better for all concerned. When, however, we come to the question of disinfection of the vagina as a routine practice, we find that there is a diverg-

ence of opinion. It has been found that routine disinfection of the vagina by means of strong disinfectants has, by altering the normal condition of the mucous membrane, sometimes done more harm than good. It has, in fact, tended to lower the vitality of the tissues, and has therefore laid the way open for the activity of pathogenic germs and the acquirement of virulence by harmless germs. In view of the harm that may thus be done, and relying entirely upon the natural protection against infection, one may omit disinfection of the vagina in all normal cases of labor. Where, however, there is any possibility of mechanical infection or of the conditions predisposing to auto-infection, then adequate vaginal and uterine disinfection may be carried out. Conditions calling for adequate disinfection are: (1) All cases of examinations and operative interference affecting the protective zone in the cervix; (2) all cases of exceptional birth where there is any delay (early rupture of the membranes), instrumental labor, etc.; (3) where, complicating labor, there is any disease of the patient, such as nephritis, heart incompetence, syphilis, diabetes, intercurrent infectious disease and anæmia.

These suggestions will hold good in the practice of gynecology as well as obstetrics. The main lesson that we must all learn is that there are normally present in the vaginal secretion certain germs which are capable of becoming virulent, that we must avoid as far as possible all conditions likely to increase or engender that virulence, and, where such conditions are present, immediate steps must be taken by means of adequate disinfection to render that virulence futile. Also we should desist in every case from all unnecessary manual examination or instrumental interference, thus leaving intact as far as possible the natural barriers which nature has provided against the introduction of infection to those parts which are peculiarly susceptible to it.

SOME CLINICAL CASES.*

BY A. E. HAWKES, M. D. BRUX., F. C. S.,

Medical Officer to the Liverpool Hahnemann Hospital.

I beg to detail the following three cases :

SARCOMA OF OVARY IN A CHILD.

E. C., a girl aged ten years, was sent to me by a colleague, and entered the Hahnemann Hospital on June 18, 1889, with an obscure history.

The child was thin and anxious-looking, but no chest symptoms or signs could be discovered. Her abdomen was swollen and tense, and on the right side there was a hard elastic tumor, extending from the symphysis pubis upwards and outwards to a level with the last ribs. The abdomen was tympanic on either side, and percussion posteriorly also gave a tympanic note. The tumor was pyriform in shape, the apex being downwards. The patient passed about fifteen ounces of urine during twenty-four hours. Rightly or wrongly a hypodermic needle was passed into the tumor, and the fluid obtained, small in quantity, was not suggestive of a renal origin. In a few days the urine passed only amounted to ten ounces per diem. Malignancy was suspected, but it is fair to state that an actual diagnosis prior to operation was not made.

Enemata seemed rather to lead to a change in position of the tumor. The temperature being below 99° F., and the pulse below 100 per minute, the patient was duly prepared for abdominal section, which was performed on June 24 with antiseptic precautions. The incision was small, and it led to the exposure of a cyst, from which about twenty ounces of dark grumous fluid were abstracted by the usual method. Adhesions above and below were gently negotiated, and the tumor was lifted out of the abdomen, the pedicle being secured with silk.

It was noticed that the tumor was semi-solid, such portion

* Presented to the Section of Surgery and Gynecology, British Homeopathic Society, January 3, 1901.

being very similar to brain tissue, and some portion was more of a sebaceous character. The patient was exhausted somewhat, and the peritoneal cavity was not washed out, but great care was taken with the peritoneal toilet, and drainage was carried out. Arnica was administered, but there was much pain and restlessness, and twelve hours after the operation there was some vomiting as well as twitching of the hands. Coma vigil was observed. The catheter was needed, and eight ounces of urine withdrawn.

There was much pain and patient continued to be very sick. Weak brandy and water gave a little relief, and at the end of the first twenty-four hours a nutrient enema was administered. Then the pulse was 110, and the temperature 100° . Four hours after they were 120 and 101.2° respectively. Urine was passed involuntarily on one occasion, and the catheter had to be continued. There was hardly any discharge from the tube. Vomiting seemed to be allayed by the administration of arsen. 3, and on the evening of the second day no pain was complained of.

A little milk was allowed after thirty-six hours, and soon after Brand's essence.

Two days after operation the pulse was 114 and the temperature 99.4° . I need not continue the narration minutely. The persistent sickness was met by arsenicum 3 and nutrient enemata, the tympanitic condition was helped by terebinth 3 centes., and four days after the operation the bowels were moved, perhaps in consequence of the enemata.

The stitches were removed in due course, and on the sixth day the temperature varied from 99° F. to 100.4° F., and the pulse from 94 to 100, but soon the breathing became rapid, and dullness at the left apex was made out, and phos. 3 was given.

On the eighth day patient took some fish and bread and milk; she slept better, and the bowels and bladder were evacuated naturally, and by July 4—tenth day—the temperature was 99° F., and the pulse 100 per minute, but the respirations were thirty per minute, and much evidence of pneumonia existed.

Some improvement took place, but soon the abdomen became distended again, until the cicatrix began to give way.

Ultimately, some five or six weeks after the operation, the child died, and at the post-mortem examination the abdomen was found to be full of fluid. Solid masses were adherent to the intestines and omentum, and another solid mass—felt during life—was found in the left iliac region. The pedicle was covered with lymph, and the intestines were matted together.

The lungs were a little congested, no true pneumonia remaining. On the right side there were many old pleuritic adhesions. There was no sign of tubercle.

So ended my first ovariectomy, but I neither regretted having satisfied myself as to the condition I had to deal with, nor having attempted to remove it.

In this connection I exhibit similar masses removed from an adult patient, and also, for the purposes of diagnosis, a kidney the subject of malignant disease, removed with difficulty even post mortem. The bowel passing in front is well seen.

I must appeal to my pathological friends to state, if they can do so from the slides, what degree of malignancy is to be ascribed to the tumor.

I exhibit, as a contrast to this malignant condition, a more or less solid tumor; the amount of fluid was small. The adhesions were not numerous, and the patient made an uneventful recovery. Microscopically, the tumor was a simple fibroma, but the lady, whose age was sixty-two, died, I think, within a year of the operation. Her medical attendant, who assisted me at the operation, could not get a post-mortem, but he thought death was due to malignant disease.

EMPYEMA DURING PREGNANCY.

M. E. C., aged thirty years, a married woman with several children, was admitted into the Hahniemann hospital with many of the symptoms of pneumonia, on December 29, 1897. The brief note on that day records "tubercular breathing, specially on the right side." She was about four months advanced in pregnancy. On the following day it was elicited that she took a chill eight days before admission. It was found that the whole side was dull, but that there were fewer pneumonic signs at the base than at the apex posteriorly, and that in the scapular region the breathing was tubular and the v. r. increased. The

pulse was weak and rapid, and the respirations were thirty-four per minute. The temperature—which the night before, at 10, had been 106.6°—had fallen to normal. Up to this time phos. 2 had been administered.

January 3.—The dullness extended from apex to base, but an ordinary hypodermic needle revealed no fluid; a warning not needed probably by any here. As there was an absence of breath sounds, no pneumonic expectoration, and as the dyspnoea and palpitation were very marked the aspirator was used, and sixty-three ounces of thick serous fluid, promising to become purulent, were withdrawn, and bry. 1x and canth. 3x were administered. Alternation is with me so rare that I mention it when adopted.

January 6.—A further quantity of fluid, thirty-two ounces, was withdrawn, much to the relief of the dyspnoea. The pulse was still 120, and the temperature the day before rose to 101.6°. The respirations were twenty-six per minute. The tongue, which had been like that of typhoid fever, was cleaner.

January 12.—Patient was not doing well; the temperature fluctuated a good deal, the tongue kept cleaner, but the pulse was rapid, small, and at times there was much dyspnoea. The symptoms being urgent she was again aspirated, and forty-one ounces of unmistakably purulent fluid were removed. Toward the end of the process she complained of much precordial pain, and she had to be laid back, fanned, and stimulated. The pulse was 120. She vomited much at this stage. She was put upon peptonized milk, and as the food came up very soon after swallowing, phos. 5x was given.

January 19.—No aspiration since, but the apex posteriorly is very dull. The doubtful sounds at base rendered it difficult to approximately estimate the amount of fluid, some other method of treatment was therefore considered necessary, especially as the patient did not relish the aspiration, and would not again submit to it. The temperature was 100.2°, pulse 120, small, regular; she was taking three ounces of brandy per diem. No progress was being made, so with the consent of all concerned, she was carefully anæsthetized by Dr. Watson, and I removed a portion of rib. She took the anæsthetic badly, and we could not spend much time over the operation. A

large quantity of pus escaped, and after a time she was much relieved. The utmost efforts were made to keep the wound clean and the discharge sweet, and the precautions succeeded. There were times when the temperature ran up, chiefly through the discharge not escaping, but on its being liberated the temperature fell.

She left the hospital on March 10, much better, and arrangements were made to keep up the dressing at home.

She seemed to be doing well, when on March 30 the temperature ran up, premature labor occurred; the child being born before I could reach the house.

The pulse was rapid and the patient weak, and she died on March 31, thirty-six hours or so after the child was born.

The post-mortem revealed the usual collapsed state of the lung, a wonderfully clean condition of the pleura, with a singular absence of adhesions.

The walls of the heart were flabby, pale, and thinned, death being chiefly due to cardiac failure, which so often during the illness had occasioned us much anxiety.

I need not present further proof of the danger to the pregnant woman of pneumonia, or pleurisy, nor do I need to refer to the remarks of Dr. Samuel Gee, and others, on the cardiac condition present in these cases, but I may ask what I am to do if I ever have to deal with a similar case, for, surely, no sadder sight can meet the gaze of the medical attendant than that of mother and child almost simultaneously deprived of life.

It will be a relief to you for me to pass on to a case where success followed the means adopted, and you may be led to admit that the recovery was due to these means.

TYPHOID FEVER DURING PREGNANCY.

Mrs. E. G., aged thirty-seven, was admitted into the Hahnemann Hospital on June 6, 1898. She was suffering from enteric fever, and subsequently her husband and two of her children came to the hospital with the same disease.

They recovered, but the epidemic was somewhat more than usually fatal in their district, which is not far from Liverpool, but in another county. It was stated that she had four children

under four years of age—and that she had some children older than these—moreover she was again pregnant at about the fourth month.

I gathered that before admission she had been taking baptisia, as her temperature had reached 103° F., and her pulse 116 per minute.

The abdomen was not morbidly distended, there were spots to be seen, and these came in crops.

She had diarrhea, and the urine gave the characteristic reaction with sulphanilic acid.

There was also one-fourth of albumin thrown down by the nitric acid test.

She was sensible on June 5, but on June 6, after a long ride in the ambulance, she did not recognize me. Her temperature on arrival was 99.2° F., rising at night to 103.2° F. It fell next morning to 101.4°, but it rose to 104° F. at 2 p. m., and a little later she was put into a bath at about 70° F., her face sponged with cold water, and her legs and chest rubbed. She was kept in the bath seven minutes, and her temperature fell to 101°.

It fell from 103.4° to 102° on her being sponged the next day.

It may be stated that before the bath the pulse was 120 per minute, regular, face flushed. After the bath, pulse 108, full; temperature 101.6° F.

The bath was tried the next day with a similar result.

On the following day—June 9—no bath was needed. On June 10 the temperature fell to 98.6 F., and a few doses of terebinth were given for obvious reasons. It rose at 8 p. m. to 102.2°, and the bath reduced it to 100° F. The diarrhea persisted. I gave arsenicum, and occasionally hyos. was called for at night.

Up to the 12th she was sponged several times, but that process was less effectual than the bath and its action more transient.

After that date sponging was often resorted to rather than the bath. She had ten cold baths, which I helped to administer on each occasion.

As the case progressed the first sound indicated stimulants, and she had some three ounces per diem.

I would say that the temperature was usually low during early convalescence, but hemorrhage did not occur.

Arsen., merc. cor., terebinth, and my favorite lachesis—cardiac weakness—were given.

I heard the fetal heart on July 1, and she was delivered without anxiety in due course, and since, yet another addition to the family circle has been announced to me by the mother herself. I have ample details in my journal, if such should be required by any.

I ought to add that Dreschfeld, in the Cambridge system, says: "The puerperal state, pregnancy, broncho-pneumonia, intestinal hemorrhages during the first week, and albuminuria, are no contra-indications" to the cold bath.

Dr. Goldsbrough said that the case of empyema during pregnancy, which Dr. Hawkes had mentioned, brought to his mind a case of pregnancy complicated with pneumonia. The patient was a young woman between twenty and thirty, and it was her third or fourth child. She was seven months pregnant. The pneumonia was of the typical croupous. During the height of the disease premature labor came on very rapidly, and before he could be summoned the child was born in the bag of membranes with the placenta attached.

The child was dead, but he thought if anyone had been there to rupture the membranes probably it would have lived, as it seemed in a healthy condition. The patient made an uninterrupted recovery of the pneumonia, and had no symptoms whatever in connection with the puerperium. Bringing his case alongside that of Dr. Hawkes suggested two or three interesting points of comparison. With croupous pneumonia we had a series of changes which were comparatively innocuous as far as the general health was concerned. The patient, if left alone, would probably get well under ordinary conditions. The occurrence of empyema was a very different condition. Such an occurrence during pregnancy, or even of pleurisy with a considerable amount of serous effusion, he thought, warranted an evacuation of the pleural cavity by operation at once rather than leaving it and using the aspirator. That suggested itself especially by comparison with the case of pneumonia he had just mentioned. In pregnancy the heart underwent a certain amount of hypertrophy—a very considerable amount in some cases, so much so that chloroform could be given where it could not in the ordinary condition, and without causing any practical alteration in the condition of the pulse. He thought

that where empyema occurred the walls of the heart became thin from absorption and from the presence of pus in the pleural cavity, and that was probably the cause of the heart failure in the case mentioned by Dr. Hawkes.

Dr. Roberson Day mentioned the case of a child under two years of age whom he admitted to the hospital suffering from a large abdominal tumor which was unmistakably of renal origin. Operation was out of the question, and secondary growths appeared in various parts of the body, notably beneath the skin of the scalp, some as large as a Tangerine orange. He watched the case to the end, and at the post mortem he found that the right kidney was as large as the head of a child at birth. No trace of kidney substance could be found in it; it was soft, and a great deal of it consisted of broken-down gelatinous tissue. A portion was examined microscopically by the Clinical Research Association, and it proved to be a rapidly growing sarcoma, confirming the diagnosis. He had never known any benefit result from operation in these cases; many partial successes were recorded where the tumor was removed early, but a recurrence invariably followed. Perhaps Dr. Hawkes would state whether there were secondary growths in the case he had mentioned.

Dr. Hawkes said that it was eleven years since the first operation he had mentioned was done. If he had such a case before him now he would leave it quietly alone. A reference to Ashby's "Diseases of Children," however, would show that successful results had followed the operation at a very much earlier age than that of the child whose case he had mentioned. Dr. Goldsbrough's hint, with regard to operating very early, might be very helpful, but he would be the first to admit that the condition of the heart seemed to be already established when the case came into the hospital, and that was the actual cause of death.



POST-PARTUM HEMORRHAGE.*

BY E. S. BISHOP, M. D.

This is a subject which is interesting and important to all medical men—doubly important, I conceive, because when a case illustrating it occurs to them they find themselves suddenly, almost without warning, in the presence of a crisis in their lives. Immediately they must decide upon their course of action—there is but little time for careful consideration, seldom time enough for consultation with others, never for recourse to books. There and then they must act; and upon their action depends the life of one person certainly, probably of two, and the happiness or misery of the family whose whole reliance, whose whole trust rests on their shoulders.

[After calling attention to the fact that most practitioners follow teachings unvaried during the past forty years, he gives a very graphic account of a typical but serious case ending fatally. Contraction is sought by many methods, compression, kneading of the abdomen, medicinally, hot water, cold water, packing, and, as a last resort, iron injections. He also gives a résumé from all modern authorities upon this special subject, and proceeds.]

I especially note the frequent repetition by every author of the word "fail"—"if these measures fail, try," etc. Dakin apparently feels so sure that the earlier measures will fail that he says "the various maneuvers must succeed one another rapidly, and the preparations necessary for those to follow must be made while any one method is being employed." Am I not justified in saying that the whole tone of their advice is tentative and suggestive of mere experiment? One seems to hear them say, "Try this, that, and the other, but understand that neither I nor anyone else can answer for their efficiency, and don't blame me if your patient dies."

But ask yourselves, "Of what did this patient die?" Did she die of an uncontracted uterus? Is there such a cause of death at all? No; she died of hemorrhage. She bled to death just as much as if her carotid and jugular veins had been cut

* Abstract of a paper read at the Clinical Society of Manchester on March 20, 1901.

and you had no effective means of stopping the flow of blood from them. Now all writers on this subject subconsciously assume or directly assert that the only effective way possible to check hemorrhage in this situation is by obtaining contraction of the uterus, or failing that, by producing firm clots in the open mouths of the vessels concerned. But is that true? Have we no other means? and how if the uterus cannot contract? How if we are striving after an end which is unattainable from the first, and from the very essential conditions of the thing becomes more and more impossible with every ounce of blood lost? May not the reason of the whole lamentable business lie here? Writers talk of atony of the uterus, inertia of the uterus, but they talk as if the uterus were a sulky child, able to do what we ask of it if it only would, and only to be coerced by strong measures into doing it; and when we fail, as I will try to show you we are bound *ab initio* to fail, there is a feeling such as a parent has with a naughty child whose obstinacy has withstood a sound whipping and who still sulkily persists in refusing to do what we wish. What else in actual fact have we been doing to the uterus but whip it? Books call it stimulating the uterus to contract. In plain English, it is mere whipping, mechanical, by kneading, flicking with wet towels, forcible compression between one hand inside and one out, between both hands outside, between the hand outside and packing within, or chemical, by ergot and strychnine, any or all of the many ways in which you are counseled to whip this lazy, obstinate uterus. It is all, when reduced to simple terms, mere whipping.

We are proceeding upon an implied premiss, which is that the uterus can contract if it will; but can it? The uterus is a muscle, and, like all muscles, after it has done a certain amount of work there comes a point when it can do no more effectively. Under pressure of will, of external or internal stimulus, it may do a little more, but it will be feeble, ineffectual, spasmodic. Some fibers may not be so exhausted as the rest, and the muscle will then contract irregularly. In the case of the uterus you may then get a temporary hour-glass contraction, a condition by no means to be desired. Every cyclist knows that if when the muscles have reached this stage further work is asked from them cramp follows, and that whilst, if rest is

allowed to the tired muscle, it soon recovers its powers, with every additional struggle after it has reached this point, a longer and longer time must elapse before it is again capable of proper use.

Of course, the answer to this, according to the present teaching, would be, "But we cannot afford to give it rest, because our only means of stopping the loss of blood lies in its completing the task required of it, however unfit it may be to accomplish it. No other way is open to us except a measure—that of injection of iron—which may produce sudden death," and the whole gist of the matter lies in the question, "Is this true or not?" One of the most marvelous things to me is that knowledge obtained in one branch of our art is so often absolutely ignored by the teachers of another. Nowhere perhaps is this more flagrantly evident than in this same question of the treatment of post-partum hemorrhage. Because the blood in this case comes from the interior of a hollow muscle at the end of a normal physiological act, it ipso facto apparently ceases to be governed by the laws which are admitted to govern bleeding in all other regions and at all other times, and requires to be dealt with by measures peculiar to itself—measures in which, however, the teachers who recommend them have so little faith that they are never tired of reiterating after each one, "Try this, and if it fails try the next on the list." But is this, of all others, the time for experiments? That these things fail is admitted by the very terms in which their advocates recommend them; and generally they were bound to fail. If ever we need a remedy which will not fail we need it here; under such circumstances. If ever experiments are inadmissible, it is here and now.

What do we all do, almost instinctively, when confronted with hemorrhage in any other part of the body? Our minds automatically reflect that all bleeding comes from vessels, vessels of two kinds, arteries and veins, and can come from no other source; that of these vessels, arteries come from a parent trunk, the closure of which prevents any loss from smaller branches, however numerous they may be; that veins in the same way converge to one parent trunk; and that if the point at which leakage from them is occurring be elevated above the heart blood will no longer escape from them. If a varicose

vein should burst in the leg, is not the first advice given in "first-aid" to elevate the limb? not that it may be as high or a little higher than the patient's head, but well above the level of his heart; and do we not know that the bleeding will at once cease? But such elevation must be decisive and purposeful, not the mere lifting of the bed foot to check syncope, such as described by Playfair. The uterus itself must be raised until it is higher than the heart, and that means of course, that the foot of the bed must be lifted much higher. The best thing, I believe, because the quickest, is to run a table underneath and to allow the foot of the bedstead to rest upon this; by such means you at once place the patient at an angle of 45° or 50° with the ground, but a chair with footstools or books piled upon its seat will do. The great thing is to take the readiest and quickest means of practically placing the patient in the Trendelenburg position. Elevation of the legs has another advantage, that it favors the return of blood from the lower extremities and so takes the place of another and favorite maneuver of those who have separate plans for all these indications and do not grasp and attack from the point of view of the main principles involved—that of bandaging the legs upwards. Such bandaging takes time and after all only effects the one thing, the emptying of the vessels of the lower extremities.

Having controlled the venous loss, we have the arterial to consider. The fact that blood is coming from fifty or one hundred open tubes is of no importance if these tubes are all fed from one trunk. If we can control the trunk we close them all. But do they all come from one source? In a way they do, because they are all supplied from the aorta; practically they do not, because about one-sixth comes through the ovarian arteries, which arise from the aorta at a relatively high point above that at which we can apply pressure. Fredet, indeed, says that in the normal unimpregnated uterus the ovarian arteries do not supply the uterus at all, all the blood going to this organ coming from the uterus, that there is a complete break up of the ovarians into capillaries before they anastomose with the capillaries belonging to the uterines. I believe that, even if this is true, it is not always the case, and moreover that, during the general development of the blood-

supply attendant upon pregnancy, the connection between the two systems becomes much fuller and more direct, but even then you will see how much less relatively of blood is obtained from the former source. Five-sixths at least comes through the uterine arteries, which, coming from branches at the very end of the aorta, are controllable by pressure at any point along its trunk. The objection raised to pressure upon the lower part of the aorta, the plan which I recommend, is that thereby you do not absolutely shut off all blood-supply, but only five-sixths or so. But further consideration will show that this is no objection at all, that, on the contrary, it is a very great advantage. What is it that we wish to do? We wish to prevent the patient from bleeding to death whilst the uterine fibers obtain their absolutely needed rest. During that rest, if it is to be of any value, if it is to yield us the desired result of fresh effective contraction, those fibers must have a certain amount of healthy blood circulating amongst them. If we could absolutely prevent any blood from reaching them they could not recover. At the end of the time, however long it might be, the uterine fibers, the natural ligatures of the open vessels, would be as powerless to contract and to tie these vessels as when we began. Probably, indeed, they would be in a far worse condition, because they would be practically dying or dead. What we want is rest and recuperation, not necrosis. It would seem, indeed, as though the construction of the arterial supply to the uterus had been specially designed for our assistance in cases of this kind—that Nature herself has pointed out the way of treatment. “Block,” she seems to say, “the main current of blood through the more direct route, that of the uterine vessels. Your patient cannot then lose any dangerous amount of blood. Meanwhile I, through the longer and more devious channel of the ovarians, will keep up a sufficient supply of blood, coming with no great force and in no great quantity, to preserve the vitality of the organ, assisting in the formation of small plugs in the open arterial mouths, vivifying and strengthening the muscular tone, which temporarily is at too low an ebb, so that when, once more, the full force of the blood-current is allowed to bear upon them, the vessels shall be found closed by clot and constricted by the now firmly contracting fibers around.”

How is all this to be brought about? Very simply indeed. The closed fist is applied with its ulnar surface resting upon the aorta as it lies over the left side of the vertebral column, and just sufficient pressure is exerted obliquely, backwards and towards the right, so as to enable it to compress that vessel against the unyielding surface beneath. At any point accessible over the course of the abdominal aorta this compression can be exerted and there is always a sufficient extent to enable us to vary the site of impact. The prolonged tension of the abdominal walls, which was inevitable during the preceding pregnancy, has rendered them so lax and unresisting now that the uterus is empty, that the vessel is readily found and as readily controlled. At first, if the patient has lost much, the sensation of pulsation against your hand is very faint, but it is astonishing how quickly this becomes more and more distinct until within a very short time the blood, now virtually imprisoned in the upper half—the only important part—of the body, raps vigorously at the closed door. Whilst this compression is kept up it is an easy matter to clear the uterus of clots, portions of placenta, membranes, etc., so that, when the uterus begins again to contract, its newly regained strength may find no needless work to do in ejecting them. Any tear in the genital canal can be explored and reunited, and all with perfect ease to the practitioner and safety to the patient since the area of operation is no longer obscured by floods of blood.

You will remember that firm traction upon the uterus checks the bleeding, and that whilst this traction is kept up we are able to plug the uterus, but that as soon as the os is allowed to re-ascend, or at all events within a few minutes, it becomes obvious that once more bleeding recurs. Why does this happen? and what light does it throw upon my method of treatment? As we all know, the uterine arteries make an acute angle in their course when they reach the uterus on either side. This angle in the normal condition is so curved as not to obstruct at all the flow of blood in the vessel at this point. A little increase in the acuteness of the angle, however, such as is produced by firm traction on the uterus, effectually kinks and closes these vessels, and you have practically the same effect, so far as the blood-supply is concerned, as you obtain by pressure on the aorta below the origin of the ovarian arteries—a

shut-off of the supply of blood through the uterine arteries. This proves two things: first, that the main supply, the only dangerous supply, the supply which permits of such a loss as may be called flooding, comes through the uterine arteries; and, secondly, that if these are closed by any means the flooding ceases. You may say, Why not, then, keep up this traction alone? Well, in the first place, prolonged traction upon the os means wounding the os, possibly tearing out, and in any case the presence of a foreign body in the vagina and therefore increased risk of sepsis. Why should we run these risks when we have as certain, as scientific, and infinitely more easy a method in external aortic compression? Landau's method of vaginal hysterectomy, which consists in splitting and removal of the uterus without previous ligation of its vessels, is based upon this fact. From the first incision to the last firm traction is maintained upon the uterus, and this organ can then be divided from top to bottom without the loss of a teaspoonful of blood.

As to the length of time during which compression should be kept up, a surgeon compressing the main artery of a limb keeps up his pressure until all the vessels arising from that main artery which has been bleeding are tied. In this case our ligatures are the revived fibers of the uterine wall, and we must wait until these fibers begin again to contract. It will be found in practice that this pretty much coincides with the firm, strong impact of the blood-current against the compressing hand; when the force of this has well revived, so also will the muscular force of the uterus be found rejuvenated; but the other hand can easily judge from time to time of its occurrence, no longer pounding and kneading its fibers in a hopeless struggle to make it contract, but gently touching it from time to time in order to gauge its condition and its tendency to contract of its own free will. It is then that the compressing hand is very slowly and gradually lifted, not permitting the full force of the aortic current to drive against the clots already formed by the blood from the ovarian arteries all at once, but gradually more and more, as they prove their capacity for secure hemostasis. When once this is the case the hand may be removed, and the contraction now established, being a natural one, will be found to be also, and therefore, a trustworthy one.

For four or five minutes the parts should be watched. It is, of course, possible that one may have removed the controlling pressure a little too soon. The force of the aortic current may have driven out some of the newly formed plugs and some hemorrhages may recur. If, however, you have fully understood the plan upon which you are proceeding, you will feel able to consider this of but little importance. You will simply replace your pressure for a short time longer, knowing that you have now to deal with a reviving, not an exhausted uterus; that some of the plugs still remain and are moment by moment becoming firmer, harder, better gripped by the recuperating fibers around; that the open mouths of the vessels from which these plugs have been dislodged are being moment by moment decreased in caliber; that the fresh clots which are again forming there do not require, therefore, to be so large as before. In a while you remove your hand again, with increased caution and greater slowness and deliberation, to find that now all is secure. There is all the difference in the world between being consciously on the up-grade and being steadily on the down-grade. You will leave the bed in its inverted position for twenty-four or forty-eight hours; not so much to check the venous bleeding as to favor the concentration of the amount of blood remaining in the patient, which must necessarily for a while be less than normal in and around the vital centers.

Now this, and this alone is, I conceive, the one and only primary duty of the medical attendant in these cases. All other things are subsidiary and must never interfere with or lessen in effectiveness this proceeding. If one hand is tired the other one can be substituted, the second being well in place and effective before the pressure on the other is lessened and removed. If both hands are tired it is easy to teach the nurse to replace your own by hers; incidentally it may be pointed out that it would be practically impossible to teach her to replace yours if it were inside the uterus, whilst, even if it were, such pressure could not be continuous, which is essential to success. During the time that the nurse or your medical friend keeps up the control you can, if you choose, transfuse with or inject per rectum saline solution—a perfectly useless measure so long as leakage is persistently going on; you can clear out clots, pieces of placenta, membrane, etc.; you can mend tears, sew up a split perineum, do anything advisable, in perfect safety and with perfect ease, since the area in which you are working is clear of blood, and the patient is quiescent, her cerebral centers being well supplied.

Editorial.

THE METROPOLITAN PHYSICIAN.

The sad and untimely death of one of New York's most prominent homeopathic physicians inclines us to review the life of the busy practitioner in the metropolis, since the death roll this season has been large in the ranks of the profession. In these days of wonder, exaggeration, and rapidity new conditions have arisen; experience counting for little, except for what development it may have caused. The mind must be receptive and purged of tradition, old calculations are of no avail, the methods of our fathers antiquated, to be referred to, if we have time, as curiosities. Time and space are eliminated for our convenience. New York talks to Chicago, six steel rails are turned out in Homestead every minute. Giant speculations, the delusions of a parietic a few years ago, are common tradings and, no doubt, shortly wireless telegraphy will make it possible to issue a daily newspaper on every ocean liner which will give the news of the world.

These conditions give opportunities for the development of great wealth and power, which are the incentives for the feverish energy and anxiety that are now our prevailing characteristics. The metropolitan physician contagiously becomes infected with the rush and hurry of his impatient and exacting clients, who grumble at the apparent lack of progress in the science and art of medicine, which allows them to be ill. Whether millionaire or hospital charity patient, typhoid fever runs about the same number of days, with the odds in favor of the charity patient making the earliest convalescence.

The lay mind never contemplates the great work done in sanitary science, quarantine, and general preventive measures, and considers health due to good fortune rather than to organized efforts to that end. The result is that the successful general practitioner becomes a very busy man; each individual patient receives more attention than perhaps is absolutely necessary, and worst of all, he requires it at all times.

The physician, for ten months of the year, is the most continuously hard-worked man in any business or profession—the single and only example of a worker without a holiday. No part of the twenty-four hours can he call his own; so, day in and week out, Sunday included, he is responding to the inexorable demands of a public that in all else usually gets what it wants. In the practice of his profession and in contact with his patients he must be alert, cheerful, and always carry into the sick room that poise and sympathy so traditional with the physician. With good health, and stimulated by a strong brain and nervous system, the human body can stand a great amount of work, mental and physical, if the strain be not too prolonged, and should proper periods of rest and relaxation intervene; but continuous efforts have but one ending—physiological bankruptcy. The duties of the physician are purely personal; no relays of assistants, no special system can be employed, and the work, mental and physical, the last being no small part of it, must be done by the individual. It is scarcely to be wondered at that when weariness of body and mind is present, under the strain of a severe season's work, such a man should fall victim to the prevailing epidemic. Even here he cannot stop, and often attends patients who are less ill than the doctor who braved the elements to minister to them.

A condition quite characteristic of this season's epidemic of grippe was a profound depression of the nervous system, associated with a greater or less degree of melancholia. The writer was struck by the presence of this latter symptom in three cases in which the physical signs were not indicative of any serious bodily ailment. Such evidently was the condition of the case in point, and thus a bright mind, a noble nature, an ornament to our profession, was, to our mind, a martyr to the conditions which exist in the medical profession to-day.

THE IMPORTANCE OF EXAMINING VAGINAL DISCHARGES.

Should a woman present herself to be treated for an annoying discharge, it is certainly the duty of the physician to give the parts and the discharge itself most careful examination.

No disease can cause such suffering, or establish such serious and almost incurable conditions, as an unrecognized gonorrheal infection in the female. Its prompt recognition—and this should be established by the microscope—will rob it of its terrors, if proper radical treatment is carried out. If allowed to extend from the vagina to endometrium, ovarian and tubal infections surely follow, and a comparatively young woman may have, sooner or later, to lose about all of her pelvic generative organs. The importance of early radical treatment seems not to be appreciated by the profession generally, hence the great number of cases of pyosalpinx, and tubo-ovarian abscesses that come into our hands; to say nothing of varying grades of tubal inflammation which make chronic invalids.

Pryor's work in this direction, curettage, opening posterior cul de sac, drainage of tubes and pelvis, has in our hands been followed by excellent results. It is certainly conservative, does not propose the removal of any organ unless hopelessly diseased, and allows a quick convalescence without, as a rule, any complications.

Vaginal discharges in elderly women and, by these, we mean those from uterus or vagina, should be carefully inquired into, so that the possibility of uterine cancer cannot be overlooked. We have seen such cases treated with douches and applications, all symptoms being referred to the menopause, until the patients had passed the stage of curative treatment.

Current Comment.

L. Bentley, M. D.:

When I commenced obstetric work I provided myself with a "Robertson" long forceps, and have found this quite sufficient for any delivery I have ever met, and now think that they are quite powerful enough to deliver any fetus that should be delivered with forceps. As for "axis-traction" forceps, one would think that a short experience with forceps would be all that is necessary to instruct one of the correct axis in which to

make traction, and also of the slightest tendency of an inclination of the fetal head to rotate, which could then be slightly favored with the ordinary forceps, which would be inconvenient with the axis forceps.

In *the application of forceps* we are told to apply them in this way and that, different authorities having different methods; but to my mind they are mostly theoretical, and some are not at all times practical. In my experience the result has been satisfactory when the forceps were applied in any manner so long as they passed over the head easily and locked easily.

One author advises that we be sure the membranes have retracted, or there will be danger of separating the placenta. In such a case the instrument will not go over the head properly. I once had an experience with such a case. After trying for an hour or more, in fruitless attempt to apply the forceps, I made a careful examination and detected a small tuft of hair which had passed through a small opening in the membranes, which were tightly stretched over the head, the liquor amnii having escaped. I immediately tore open the membrane and had no further difficulty in applying the forceps. Again, we are so often told of the danger of forceps slipping, particularly in occipito-posterior cases and in applying forceps at the pelvic brim. If the forceps are applied well over the head and traction made in the right direction they will not slip—at least, they have never done so with me. Some years ago, while delivering a patient, I had this forcibly brought to my notice. The patient, a large, stout woman, had been in labor for several hours, with liquor amnii long drained away and the head still at the brim. I applied the forceps with the patient in the dorsal position in bed. The head was so far up that I had the nurse separate the labia so that I could lock the forceps within the vagina. The forceps slipped, and did so a number of times. I took time to think the matter out, when I saw that I was simply applying the forceps and pulling them off over the rounded occiput. I then had the patient laid across the bed, with her feet on two chairs and buttocks brought to the edge of the bed. I applied the forceps and made traction in the direction of the inlet, which I could not do while the patient was lying in bed in the usual position.

Delivery was quickly effected, but with the child's scalp scratched in several places. I have never since had the forceps slip or cut a child's scalp.



H. V. Sweringen, M. D.:

My experience in *occipito-posterior presentations* in the primipara teaches me that forceps are invariably required, and that lacerations of the perineum invariably occur in spite of every precaution taken by the careful accoucheur, and that not infrequently the rent extends into the rectal sphincter.

Having just returned from a case of this character, I am forcibly reminded of the idea I have long entertained concerning these cases. This idea may not be new with me, but I do not remember of ever having seen it suggested in a book upon obstetrics.

I believe it should be the rule to which there should be no exceptions that in all cases of occipito-posterior presentation in the primipara, the rupture of the perineum should be anticipated as absolutely certain to occur, and therefore should be made artificially instead of allowing it to be made naturally by an unnatural presentation.

For reasons which are too obvious to require enumeration, a properly incised wound of from one-half inch to two inches in extent, if necessary, of the stretched perineum is much more desirable than a ragged, œdematous, contused, lacerated tear extending through the sphincter.

An incision to the extent of two inches of the stretched perineum would not equal more than a half inch of it unstretched, or after the delivery of the head is accomplished. An incision of only a half inch of the stretched perineum may frequently sufficiently facilitate the extraction of the head and result in saving the integrity of the balance of its structure and that of the sphincter. A grooved director passed between the head and perineum would protect the scalp from injury, and therefore should constitute one of the important instruments contained in the obstetric bag. By care, however, the division of the perineum could be made without it.

It is sometimes the case in these cases that we are not positive that the presentation is one of the occipito-posterior va-

riety, owing to our inability to locate the sutures or fontanelles. In such cases the mere application of the forceps will establish with certainty the character of the presentation. If it be an occipito-posterior one, the handles of the forceps cannot be made to assume readily, if at all, the position they very naturally assume in occipito-anterior presentations—that of resting upon the floor of the perineum.

♦ ♦

F. S. Clark, M. D.:

The delivery of the obstetric patient is generally done with the patient lying on her back. I believe the side is the superior *position for delivery*, for it gives a better view of the parts, with its attendant advantages, a better control of the advancing head, and so a better protection of the perineum. With a patient lying on her back and the buttocks often sinking into the mattress all discharges settle around her so that with the best of care it is not possible to keep the parts clean. The advancing and receding head comes in contact with the discharges, increasing the danger of carrying infection into the vagina.

With the patient on her side, her hips close to the edge of the bed, the physician has a perfect view of everything with the least exposure of the patient. The parts can be kept free from the discharges, the hands of the attendant being protected either with cotton, gauze or sterilized cheesecloth, so that they need not come in direct contact with anything. In this way danger of infection is reduced to a minimum.

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Jas. U. Barnhill, M. D.:

It is sometimes difficult to make a diagnosis between *cellulitis and peritonitis*; in many cases these inflammatory processes are essentially one and invade all the tissues of the pelvis. In many instances, however, cellulitis exists without involvement of the peritoneum, and with a reasonable degree of certainty we may make a differential diagnosis. In pelvic peritonitis the pain is more acute and the motion of the body more intolerable than from a cellulitis alone. There is more fixation of the uterus and the appendages in peritonitis than in cellulitis. The patient in many instances is more constrained to keep quiet

and flex the thighs. In peritonitis tympany is probably more generally present and the adhesions are firmer and more closely attached to the uterus. In pelvic cellulitis there is a degree of separation between the uterus and the inflammatory mass. There may exist pelvic cellulitis with secondary involvement of the peritoneum even without peritonitis. I once treated a case of pelvic cellulitis which resulted in the formation of sub-peritoneal abscess of considerable size beneath folds of the broad ligament. The patient declined to have an operation for draining the abscess through the floor of the pelvis. In the course of time—about a month—the patient being in the recumbent position, the tumor appeared above the ileo-pectineal line on the left side. It had burrowed along in the subserous areolar tissue and presented a well-marked prominence on abdomen. Drainage was secured through a ventral incision near the median line. Almost a quart of pus was removed. Drainage was maintained for ten days or two weeks, when the incision was closed. Strong adhesion caused some lateral misplacement. Recovery of health was complete. In this case there was not primarily appreciable involvement of the peritoneum.



Wm. J. Smyly, M. D.:

We can tell whether the woman is pregnant or not by *external examination*, also the period to which the pregnancy has advanced, and we can ascertain the presentation and position of the fetus, whether it be living, dying, or dead, and whether there be one child or more in the uterus. We can also tell whether the patient is actually in labor or not, and the course and progress of the labor may be followed with accuracy. Pelvic deformity is suggested by pendulous abdomen, abnormal mobility and obliquity of the uterus, especially in primiparæ, and in the latter also, excepting hydramnios, hydrocephalic fetus, and plurality of children, all of which may be diagnosed by this method. It is an ominous sign, where labor has actually commenced, to find the head still above the brim; the way in which it enters the cavity is also characteristic. In prolonged labors danger to the mother is indicated by thickening of the upper and thinning of the lower uterine segments; the

elevation of the contraction ring and the prominence of one or both round ligaments. External examination is equally useful in the third stage of labor, and its proper conduction depends upon it. The external examination then is the one chiefly to be relied upon, not only because it is safer, but also because it gives more information to the examiner, and because it is easier and more reliable. Having for many years practiced the vaginal examination exclusively, I found it difficult to persuade myself of the truth of the latter assertion; but not only has my own individual experience proved to me that this is so, but in the hospital, where the students are obliged to write down upon the bedcards the result of each examination, I found that mistakes in diagnosis were much more frequent with the vaginal than with the abdominal method. There are two things, however, which can only be made out by vaginal examination, and these are the condition of the os uteri and a prolapse of the umbilical cord; and if for any reason, such as inexperience on the part of the examiner, or insuperable difficulties, such as very fat or rigid abdomen, on the part of the patient, the results of abdominal examination are unsatisfactory, a vaginal examination becomes necessary.



B. G. Thomas, M. D.:

Having had an extensive midwifery practice among the "well-to-do," I have had what I presume would be considered a fair average number of cases of *post-partum hemorrhage*, and I recall my terrible anxiety as to the result even now with a shudder. These cases would come on regularly in the same people. The labor would be quite an ordinary one, the placenta and membranes coming away without any exertion or hurry, the uterus contracted, abdominal bandage put on, and everything seeming right. In 20 minutes' time the uterus would relax and the most alarming hemorrhage come on. This has been the history of a large number of these bleeders in my experience. It is not necessary for my object to narrate the different methods employed; but though I never had a death from post-partum hemorrhage it is a marvel to me that none succumbed. When engaged to attend these ladies in a subsequent confinement I knew what would happen and I

went in dread—ergot in full doses, hot-water intra-uterine injection, etc., notwithstanding.

At last one day, when everything seemed to fail, in desperation I plugged the vagina well up to the cervix, at the same time holding the uterus firmly down into the pelvis. Then having the patient on her back, I fixed a large firm cushion pad, book, or pin-cushion, just above the uterus and bound it so firmly by bandage that it was impossible for the uterus to expand. In most cases, except in very fat persons, this is very easily accomplished. There was no more hemorrhage. In six hours' time the plugs were removed and the uterus was thoroughly syringed out with lukewarm water till not a trace of clot was visible. No further hemorrhage resulted in any of these cases. This practice, I am aware, was very much opposed to the teaching of my day, but the result was so good in my first case that ever after when these bleeders were delivered it became my practice always to plug more deliberately and carefully as soon as the labor was completed and to fix down the uterus as I have described, being very careful not to allow more than six hours to elapse before removing the plug. The clots that were then removed were not large, proving that the uterus could not distend. It always seemed to me that the small soft clot of blood which remained stimulated the contraction of the uterine muscular tissue, and that the early removal of clots and plugs prevented the coming on of any septicæmic conditions. Certainly all hemorrhage was stopped at once by this procedure.

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Henry J. Kreutzmann, M. D.:

For purposes of everyday practice it is not necessary to scrutinize carefully the urine for certain chemical bodies, such as kreatin, and their amount. I am of the opinion that even the amount of urea secreted is not of such importance to know. Some writers have advocated a close watch on this chemical body in gravid women. In my estimation, it is *the amount of urine secreted* which is of the greatest importance. Albumen certainly plays no rôle in the production of eclampsia; gravid and parturient women, without albuminuria and without lesions of the kidneys, have been seized with the typical convulsions.

I have found in a number of gravidæ transient albuminuria, that means to say, at repeated examinations of the urine of the same person, albumen was once or twice found, when it disappeared without any treatment whatsoever. Furthermore, women with a great deal of albumen in their urine have escaped eclampsia, if the secretion of urine was going on freely. Albumen or no albumen in the urine, a woman will not be seized with eclampsia if her urine flows freely. Certainly the constant presence of albumen and casts in the urine, and the appearance of oedematous swelling of the limbs, is an indication that the kidneys are damaged; such kidneys may at the critical time cease to work much easier than healthy ones. But the simple fact that a gravida has albuminuria does not mean that she will have eclampsia, just as little as it is certain that a woman who has no albuminuria is safe from convulsions.

It becomes, therefore, necessary to see that the urine be secreted freely during pregnancy; especially toward the end of the term a careful watch should be kept, every change noted, and such steps undertaken as will produce a free secretion of the kidneys.



E. G. Zinke, M. D.:

I desire to report an experience I had with *asphyxia neonatorum* which resulted from the use of forceps to the head. The mere application of the instruments was sufficient to excite respiratory movements on the part of the child. The mother was a primipara, aged twenty-seven. Labor commenced about four o'clock in the morning. I arrived on the scene about seven o'clock a. m., and found the os dilated nearly one-half its full extent. The membranes formed nicely. Vertex presentation; first position. The labor progressed normally with the exception that the "pains" were very annoying and exhausting. The patient complained bitterly and was irritable. After the os was fully dilated I ruptured the membranes, and expected labor to be complicated in a short time. As soon as the head touched the perineum it became arrested, and there was no further progress for more than two hours. The suffering had become so intense that I concluded to apply the forceps and deliver.

The introduction and application of the forceps was easy. As soon as the uterus contracted traction was made. To my surprise I felt a distinct and sudden movement of the head, and then another, when I relaxed my efforts and watched for further developments. The movements impressed me as though due to attempts at respiration. The movements were repeated three times while I held the instruments loosely in my hands. The motion was so distinctly conveyed to the handles of the forceps that they were readily noticed by my assistant, who gave the chloroform, and by the husband and nurse, who sat by the sides of the patient and whose attention I called to it. As the child was in evident danger, I delivered it as rapidly as the circumstances would permit. The child was born asphyxiated, having drowned in the amniotic fluid, which was mixed with blood and meconium. After cleaning the air-passages the child was successfully resuscitated within thirty minutes, and is apparently doing well to-day. This is the first time, in my own experience, that I have had the function of respiration excited by the mere application of the forceps to the head. At first it occurred to me that a loop or portion of the funis might have been caught between the blades and the head. This proved not to be the case. When the head was born I found one coil of the cord tightly around the neck of the child, showing that it could not have been loose enough at any stage to permit it to fall within the grasp of the instrument.



M. Murray, M. D.:

I feel sure that an explanation of much of the increase of maternal mortality from 1827 onwards would be found in, first, the *misuse of anæsthesia*, and secondly, in the ridiculous parody which, in the hands of many practitioners, stood for *the use of antiseptics*. In a word, the use which had been made by many of two of the greatest blessings of humanity had converted them into little else than a curse. Before the days of anæsthesia interference was limited and obstetric operations were at a minimum because interference of all kinds increased the conscious suffering of the patient. Thus forceps and turning were employed only when natural efforts had failed, and

such operations as the artificial dilatation of a rigid os were not attempted until it became an urgent necessity. When anæsthesia became possible, and interference became on that account more frequent, operations were undertaken when really unnecessary, and so complications arose and the dangers of labor increased. Then came the antiseptic era.

Here now was the panacea for all the dangers of childbed. All that was necessary was to dip the instruments for a few minutes in a carbolic lotion, and the hands in one of half the strength for half the time, and all danger was at an end. When we heard of men who admitted that forceps cases represented thirty to seventy per cent. of their practice, we wondered what the antiseptic precautions were which they claimed as their justification. Normal labor was a natural process which was best left to itself, and the less the patient was disturbed with the paraphernalia of obstetrics before or after the better. The moment we interfered it became a complex and dangerous process, and it was simply because this was being constantly ignored that the deathrate of childbed was what it was to-day.

Until men realized this, and recognized the fact that the simplest obstetric operation demanded not one whit less of care as to antiseptic precautions than was required before opening the abdomen, we should get no further forward. A bruised or lacerated maternal canal was quite as susceptible to microbic attacks as the peritoneum, and probably more so. When it was realized that labor was a natural process which in the great majority of cases it was criminal to disturb, when it was realized that every interference increased the inherent danger a hundredfold, and when under this consciousness the obstetrician brought with him to the lying-in room all that was possible of those principles of antiseptic surgery which had been at the bottom of the triumphs of modern gynecology, we shall not have long to wait for the lightening of the dark cloud which hangs over us now.

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A. D. Stevens, M. D.:

Is it not remarkable that I should have been in the practice of medicine all these years and meet with only one instance of

hourglass contraction at the internal os (fully twenty years ago) and one case (a few days since) of contraction at the middle of the uterus? With the single exception of ectopic gestation, I fancy I have seen about everything else that a medical man is expected to contend with in the practice of midwifery.

The confinement that I will describe went on well enough apparently until the delivery of the placenta was attempted, when I failed to find it where I expected. As there was then no reason to suspect that there was anything wrong, I waited a few minutes for its arrival down near the mouth, and in the meantime the nurse compressed the womb. However, soon after this it became evident that the patient was flowing badly, and the second attempt was made to reach the afterbirth, with the result that the uterus was found contracted in the middle and the placenta well shut up above the constriction. The next thing to do was to get it out of its prison or inclosure and control the hemorrhage. With the hand, or rather fingers, arranged conically, the constriction was dilated, the placenta detached and delivered, but not without a little pain and loss of blood on the part of the patient and the loss of more or less perspiration on the part of the doctor. This accomplished, and a full dose of ergot given, a good contraction was secured, and an arrest of the hemorrhage obtained. The only after-treatment she received beyond the ordinary consisted in washing out the cavity of the womb with a mild antiseptic the next day. Her husband told me yesterday that his wife was all right—as well as ever. Previous to this she had quite easily given birth to two children. And here I would express the opinion that it is not necessary to insist upon the douche, or injection, after every case of accouchement. It seems to me that if the womb is thoroughly cleansed out and well contracted, nature may be safely relied upon to do the rest.



D. W. Springer, M. D.:

The *position after abdominal operations* or other severe operations requiring profound narcosis as advised by surgeons generally has been the recumbent position with the pillow re-

moved, and in many instances with the foot of the bed elevated.

I believe the position which is obtained by raising the head of the bed from twelve to fifteen inches to be a therapeutic agent in all abdominal operations and after prolonged anæsthesia, as it tends to promote peristalsis in the natural way, thus decreasing the nausea and vomiting, which are distressing symptoms, especially after ether, as well as to lessen the chances for a rapid infection of the general cavity if any septic material has been encountered during the operation, by favoring natural drainage into the pelvis.

I believe that this is the proper position, not alone on account of the physical comfort to the patient, but also anatomically so, for the security it gives the patient against any rapid systemic invasion if we have pus or other septic material, as the fluids will all drain into the pelvis.

The anatomical construction seems to be especially arranged here to aid nature. The pelvic cavity is capable of holding a large amount of fluid, yet how easily it can be shut off from the general cavity! The omentum takes a great part in this; it seems to be ever ready to rush to the point of infection and aid in fighting it or in forming a barrier against its spreading. How very frequently we find it attached to tubes, ovaries, uterus, etc., and thus holding collections of pus or other fluids securely in the pelvis.

The pelvis is the natural well, so to speak, in which to place your glass or gauze drain, and it follows that the position which favors the collection of the fluids, septic or otherwise, into the pelvis must be the better one. We all know that the natural peristaltic movements are aided by the elevation of the head and trunk, but it has usually been maintained that nausea and vomiting were lessened. In my cases I have found the reverse to be true.

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George W. Davis, M. D.:

It has been my fortune to have had but few deaths of the child from *forceps delivery* and no deaths of a mother. The importance of having a dilated or dilatable os cannot be too strongly emphasized. I have found in cases of a rigid os that

the application of ten per cent. solution of cocaine has in most cases acted quite promptly. It is not the use but the abuse of forceps which the experienced obstetrician should condemn. While the obstetrical forceps is a two-edged sword, yet, in the hands of an experienced accoucheur they are a life-saving device, and curtail the suffering of a prolonged and agonizing labor. If the woman is discouraged, nervous, or exhausted, greater is the reason for using them. When the head is left in position along the floor of the pelvis for some time the danger of permanently impairing the tone of the tissues is much greater than can possibly be incurred by proper application of forceps. I am impressed that antiseptic precautions are not as carefully observed in the application of the forceps as they should be. I think it cannot be questioned that there is entirely too much carelessness in non-instrumental practice also. It should be borne in mind that delivery with forceps is a surgical procedure, and should be conducted with the same degree of care as almost any other surgical operation. Asepsis should be the sheet-anchor in all cases, antisepsis only when required. When the true presentation is recognized, the indications favorable, and the operation done under proper precautions, I am a sincere believer in the use of the forceps.



Wm. Gillespie, M. D.:

When labor is induced in a patient where *pregnancy is complicated by cardiac disease* the usual methods will not suffice, because they depend upon the mother's efforts to secure uterine dilatation. If the cervix is dilatable and the patient a multipara, with roomy pelvis and lax pelvic floor, rapid manual dilatation and extraction by the feet is safest for the mother, because it saves her the exhaustion of labor, and it also offers good prospects of delivering a living child. In most primiparæ and many multiparæ, with firm cervical structures, manual dilatation will require the patient to remain under an anæsthetic for a period not compatible with her safety, while the extraction of the child is apt to be sufficiently retarded to reduce its chances of delivery alive.

There seems to be a tendency of late to compare manual dila-

tation with dilatation by the hydrostatic bags, to the disadvantage of the latter. This tendency is to be regretted, for a careful consideration of the subject shows that they are applicable in distinct classes of cases. Barnes devised his bags for use in cases where the cervix was not yet in condition to be safely dilated by the hand. In many cases it is only after several hours of labor that the cervical structures have softened sufficiently to give promise of safe and speedy dilatation, and it is these hours of labor we are trying to rule out. The proposed treatment can perhaps be best illustrated by the following:

The blades were introduced through the partially dilated os, the head grasped, and the handles moved gently in the arc of a circle to the mother's left. The nurse, pressing the fundus of the uterus to the left, assisted in keeping the head in its new position until the blades could be withdrawn and reintroduced, when, by again moving the handles in the arc of a circle toward the mother's left, the head was brought into the second position and thus delivered. The child weighed seven pounds, and has since done well. There were two apoplectic spots in the placenta the size of a silver dollar, showing beyond doubt that our fear for the child's welfare was well founded. The mother made a prompt recovery, and is now in a very satisfactory condition, although the evidence of mitral insufficiency is decidedly greater than previous to conception. The uterus is movable and the left tube still has the sausage-like feel.



Charles M. Green, M. D.:

In my judgment the hot-air bath is most appropriately used in the *treatment of actual eclampsia*, and then chiefly because the patient is often comatose and unable to help herself: under most circumstances, certainly in most private practice, it is impracticable to use hot-water immersion baths, when the patient is comatose, for want of adequate assistance. The hot wet pack is often successful in its results; but when circumstances permit its use the hot water immersion bath, in my opinion, more satisfactorily meets the indications. Not only does it produce profuse diaphoresis and reduce blood tension,

but it acts, as is well known, as a marked sedative to the nervous system. This bath is easily administered to a conscious patient, the aid of a single assistant being sufficient: few houses to-day, even among those in humble circumstances, are without a bathtub. The water should be as hot as can be borne, and the patient should remain therein until profuse perspiration of the face shows that the sweat glands are in full activity. If the heart's action is at all weak, it is wise to administer brandy before immersion. When, as often seen in hospital practice, the skin is obviously dirty, its activity, and cleanliness as well, may be promoted by the friction of a flesh brush. When free perspiration has been induced, the patient should be rolled in a blanket, placed in a warm bed, and covered with several blankets and perhaps a rubber sheet. In this use of the hot-water bath it should be remembered, however, that it is a powerful agent in the induction of labor, and should not be employed unless the termination of pregnancy seems indicated, or at least warrantable. The use of the hot-water bath is therefore inadvisable prior to fetal viability or shortly thereafter, except in the presence of urgent symptoms not otherwise relieved. It should also be remembered that when free diaphoresis is employed, there should be an ample ingestion of liquids. In the comatose patient in actual eclampsia normal salt solution, by hypodermic or rectal injection, or intravenous infusion, meets the indication. But in threatening eclampsia the patient is able to drink freely and thus supply the needed volume of fluids.



Homer Gage, M. D.:

It has always been the custom to consider the age of the patient as an important factor in determining the necessity of operation upon *uterine fibroids*, and it is perhaps as true now as ever that the younger the patient, other things being equal, the stronger the indication for surgical interference. On the theory that the growth of fibroids ceased with the menopause, it has been commonly held that if a patient has approached somewhere near the time when the menopause should be expected, she should be made as comfortable as possible by palliative measures or by simple surgical expedients, and thus

tided along until nature shall have effected the cure. Further investigations, however, show that this is by no means always true, that fibroids continue their growth independently of the menopause. This is especially true of those which have undergone cystic degeneration. Another factor of almost equal importance in this connection is the effect of fibroids to delay and prolong the menopause, an effect particularly trying to the patience as well as to the strength of the patient. In view of these possibilities, I have felt that age should be given a place of very minor consideration in determining the question of operation, and have preferred to decide that question upon the evidence derived from its history and symptoms and without any special reference to the patient's age—the age of the tumor, its activity, and its influence seem to me very much more important than the age of its possessor.



L. G. Baldwin, M. D.:

An error is often made in *bimanual examinations*, in having the legs too far flexed; having them well brought up on the abdomen, I think, is a mistake. The feet should rest on the table on which the patient is lying, any apparatus extending from the table is objectionable, for if the thighs are well brought up on the abdomen they are in the way of the free movement of the examining hand over the abdomen. The clothing should be entirely loosened,—all bands, corsets, and everything else,—the bowels and bladder must be empty. The condition of the rectum is always dwelt upon, but I think we are apt to overlook a full bladder, and it is not always easy to recognize it.

The next thing is the choice of the hand to be used in making a vaginal examination. The question has often been asked why do gynecologists so universally use the left hand for vaginal examinations. That I have never had explained or answered to me, but I fancy it is largely this: when a man begins to make vaginal examinations neither finger nor either hand knows very much about what it comes in contact with in the vagina, whereas the right hand with most of us is partially educated in feeling things we are accustomed to feel and that

the eyesight can help out; therefore in the beginning if you have got to educate one hand why not educate the left and so to a great extent become ambidextrous?

Another question is as to the number of fingers to use in making bimanual examinations. Personally I prefer one, and believe that I can determine more from the use of one finger than I can with two. It is true that in some instances with the second finger or with the whole hand you can reach further. I am sometimes confused whether I feel two things or one when using two fingers, whereas with one finger it is always plain and I know what I am feeling.

As to the position of the hand. In all of the text-books I have been able to consult, the pictures of the examining hand are shown with the examining finger or fingers extended, the thumb extended and held vertical, striking the clitoris and urethra, the remaining fingers half flexed toward the palm of the hand, or bent down against the perineum and over the anus. I can absolutely make no progress in examining by that method, because the extent of the examination is limited by the symphysis and coccyx. I believe the proper method is to fold the fingers on the hand and get the thumb well out of the way, then the perineum can be pressed back and so gain a considerable distance. With a little practice the radial side of the finger can feel just as well as the palmar side, and one or the other surface may be made to touch all parts to be examined by twisting the hand from side to side, the perineum being well pressed back.

One great advantage in making vaginal examinations, which I have noticed is not often made use of, is that after the perineum is pressed back, instead of forcing the finger in, the wrist is bent up so the finger may be pushed up behind the uterus.

In palpating the uterus, after the preliminary examination of the vagina has been made, instructions are sometimes given to make a sudden pressure or a sudden tap on the fundus of the uterus with the opposing hand on the abdomen. I have not obtained as good results by that method as by the gradual pressure, believing that in all instances the bimanual examination is best made with the least possible pressure or pain to the patient, because immediately any pain or sudden motion is made

the recti muscles are contracted and so we are barred from all information. I believe the best results will be obtained by gradual pressure both on the abdomen and in the vagina, instructing the patient to draw long breaths to allow her abdominal muscles to relax and directing her attention to something else if possible. In regard to palpating the ovaries and tubes, it has been stated by a good many that anyone with any skill at all should be always able to palpate the normal ovaries. I am frank to say that with the best endeavors I have been able to make I have often failed to palpate the normal ovary, and contrary to the usual rule of the books I find it much easier to palpate the tubes than the ovaries, because the tubes are more easily located. If the uterus can be caught between the two hands, it is easy to slide them from one side to another and palpate the tube.

The recto-abdominal examination has not given me as much satisfaction as it has most men. The main conditions which I have been able to make out to better advantage than by the vagina have been posterior displacements of the uterus and new growths or inflammatory conditions low down in the pelvis. Bimanual examination is also aided in some cases by displacing the uterus, pulling it down, or pushing it up backwards or forwards, but I think this should be done with considerable care and never done until a pretty careful examination has been made of the uterus in its existing position.



Richard Alcock, M. D.:

By far the commonest cause of tedious labor is *occipito-posterior position* in *vertex presentations*, and in these cases in most text-books are recommended all sorts of operative measures.

As regards the duration of labor in occipito-posterior deliveries, of 68 cases I collected some years ago from literature, there were 31, or nearly half, where the labor lasted for eight hours or less. Of my own 4 cases of full-sized children the times were respectfully three and a half, six, fourteen, and eleven hours.

I have lately kept notes of 35 consecutive cases of occipito-

posterior positions. Twenty-nine rotated into occipito-anterior, and were born without assistance; 2 rotated spontaneously, but were delivered by short forceps, for delay on the perineum after rotation had taken place; 2 premature cases persisted as occipito-posterior, and were born in that position without assistance. One was rotated by the Tarnier maneuver, but was delivered without further assistance. Lastly, one was a case of high forceps for contracted pelvis. In this case the head was rotated by the forceps when the pelvic floor was reached and distended. In some of the unaided cases labor was unduly prolonged, nine lasting more than twenty-four hours; but in every case the delay was in the first stage. Thus, one case was in labor three days, but the os was only dilated an hour and a half before delivery. In another case the waters broke two days before delivery, and the dilatation of the os proceeded exceedingly slowly. It will thus be seen that forceps could not with propriety have been used till quite the end of labor, and then it was unnecessary.

The point I wish to establish is that occipito-posterior positions, if let alone, will almost certainly rotate forwards; and even if they do not, the chances are still strongly in favor of spontaneous delivery. I shall strengthen this last statement by a few figures in addition to the ones already quoted. Thus, of unrotated occipito-posterior cases Villeneuve had 13 natural deliveries out of 16 cases, and two of his forceps cases were for contracted pelvis. I myself, excluding cases seen in consultation, have had 9 out of 13, or, excluding premature cases, 4 out of 8, the assistance being given for (1) eclampsia, (2) contracted pelvis, (3) uterine inertia in a twin case, (4) on account of the position preventing delivery. So in my series only once was artificial aid demanded on account of the position.

I therefore wholly differ from the views of many, inasmuch as, instead of recommending the forceps to be "constantly" used in occipito-posterior positions, I should, on the contrary, most strongly urge the advisability of avoiding their use as long as possible.

To assist anterior rotation attempts are sometimes made to secure "flexion" by pushing up the brow during or between

the pains. I think this is quite futile; at any rate, I have never been able to effect anything thereby, the so-called extension being due to the chin being crowded forward by the fetal trunk engaging the pelvic inlet behind it.

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W. B. Coley, M. D.:

A careful study of the literature of the radical cure of hernia has convinced me that the *treatment of inguinal hernia in the female* has not yet received the attention it deserves.

The opinion of Howard Kelly that the removal of the sac is of little importance, especially in small herniæ, is, I believe, erroneous, and likely to do much harm.

To show that the removal of the sac is of the greatest importance, I would cite a series of cases of hernia in children observed at the Hospital for Ruptured and Crippled during the years 1888 and 1889.

In seven cases in which the sac was not found, four relapsed in a few months, and two were not traced. I have never as yet seen a case in which the sac could not be readily found, and after a little care and patience it may always be dissected from the round ligament and tied off on a level with the general parietal peritoneum.

As to the necessity or desirability of transplanting the round ligament, I believe it is never indicated. It decidedly complicates the technique of the operation, and if, as I hope to be able to show, perfect results can be obtained without this step, the simpler operation should be preferred.

The method that I have employed in 134 cases is practically Bassini's method as performed in the male, the single step of transplanting the cord being omitted. The incision is made one-half to three-fourths of an inch above and parallel to Poupart's ligament, and should extend nearly to the level of the anterior superior spine. The aponeurosis of the external oblique is slit up well over the internal ring and dissected back to the edge of the rectus, on the inner side and on the outer sufficiently far as to expose the thick fold of Poupart's ligament. If the sac is sought for high up just below the edge of the internal oblique muscle, there will be no difficulty in finding it. After the sac has been dissected from the round ligament and

thoroughly freed, well within the external ring, it is transfixed and tied off with catgut. The wound is then closed in three layers as in Bassini's method, a medium-sized kangaroo tendon being used for all buried sutures, and catgut for the skin. In the deep layer interrupted sutures, usually four or five in number, are introduced from above downward, bringing the internal oblique and transversalis muscle over to Poupart's ligament. The round ligament is allowed to drop back into the lower angle of the wound, and as it approaches the pubic bone it is so small that it requires much less space than the cord in the male. The aponeurosis is now sutured with a continuous layer of kangaroo tendon, about the size of a number one catgut. The skin is closed with drainage, and the wound dressed according to the practice that I have used in all hernia cases the past ten years, viz., ten per cent. iodoform gauze and moist bichloride gauze 1-5000.

This method of operation and dressing has given such admirable results as regards primary union, that I have been loth to change. Prior to December, 1898, when I began to use rubber gloves for assistants and cots or gloves for myself, I had ninety-six per cent. of primary wound healing, and since this date I have had 150 cases of hernia, with but one suppuration, which was proved bacteriologically to have been due to imperfect sterilization of the skin of the operative field rather than to defective technique.

I employ chromicized catgut or tendon, which may be rendered perfectly sterile, and remains unabsorbed sufficiently long to fulfill all the requirements of a buried suture, without the danger of causing sinus formation, I believe that the use of silk, silver wire, or silkworm gut should be discarded.

To return to the technique of the operation itself, I have always believed cutting of the internal oblique muscle not only unnecessary, but likely to weaken the canal.

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H. D. Jenks, M. D.:

I do not believe the average physician is careful enough in diagnosing *the position of the fetus in the uterus*. He seems contented usually to find that the vertex or breech presents, and then to let nature take care of the position. Ex-

ternal examination properly carried on, especially when aided by the position of the fetal heart determined by the stethoscope, will give often more accurate information of the position than vaginal examination. It usually requires no great skill to find out that on one side of the woman the smooth fetal back and on the other side the uneven extremities lie. Then if we remember that in vertex presentations nearly all cases are those of occiput left anterior, or occiput right posterior, we shall know that the fetal back will lie on the same side as the vertex. It seems impossible to see how a prognosis of the length of labor can be made without knowing what position the fetus has. For instance, occiput right posterior positions are much slower in the expulsive stage, because the vertex must, after it reaches the floor of the pelvis, rotate through three-fourths of a circle, while in the occiput left anterior it goes through but one-fourth of the circle.

Vaginal examination presents many difficulties which even the most careful will have trouble with, especially in the early stages of labor when the vertex is high in the pelvis. It is in this stage that external examination helps out.

We can always confirm our diagnosis of position when the head is delivered by watching external rotation or restitution, for if we recall the mechanism of labor we remember that the vertex swings back into the position it was in previous to external rotation.

It seems foolish to insist that when forceps are to be applied we know exactly the position of the fetal head. If it is necessary to know the position in non-instrumental cases it is doubly so in instrumental ones, where there is the introduction of rigid blades that can do incaluable damage to the soft parts. Then, too, with the patient under an anæsthetic the accoucheur has no excuse for failing to find out all there is to find out. In operative cases it makes a good deal of difference whether the vertex is in an anterior or in a posterior position, for the application of forceps to the posterior position, especially if at the superior straight, is one of the most difficult of procedures. In my opinion it should not be done without at first attempting rotation to an anterior position with the hand in the vagina, and then only rarely. My practice in such cases is to allow

the vertex to reach the pelvic floor, and rotate as much as possible under normal contractions before attempting instrumentation. Frequently these posterior positions present difficulties, as in a case I recall, where after the pelvic floor was reached the vertex failed to rotate. Under an anæsthetic manual rotation to an anterior position was made. The hand was partly taken out in the introduction of the blades. The application, however, was so easy and accurate that I was surprised to find on delivery that the vertex had rotated backward to its original posterior position, and I delivered it face to pubis, fortunately without such a bad perineal tear as we usually get in such cases.



James Bell, M. D.:

I believe that women as a rule detect very early any deviation from the normal condition of their breasts. Modesty and dread of operation, and perhaps, other causes, often impel them to keep this knowledge to themselves for considerable periods of time; but, if I may judge from my own experience, women who do not consult a physician, in these very early beginnings of *disease of the breast*, often get very little satisfaction. The symptoms complained of are either explained away in an off-handed manner, her well-grounded fears are allayed or dissipated, and she is lulled into a feeling of false security, from which she will probably receive a rude awakening a few weeks or months later.

I do not underestimate the difficulty of making a diagnosis at this period, I only wish to emphasize the importance of endeavoring to do so. In fact, a positive diagnosis is impossible before certain well-recognized signs have appeared; but, in my opinion, every mass or growth in the breast of a woman over twenty-five years of age, which cannot be clearly diagnosed as a cyst, abscess, fibro-adenoma, or of inflammatory origin, should be looked upon as a possible (I would almost say, probable) cancer, and serious special efforts should be made to come to a positive diagnosis. Among these serious special efforts I would include even an exploratory operation, if necessary.

A simple incision will detect a cyst or a chronic abscess,

but if the simple incision does not make the diagnosis clear, I do not hesitate to advise the removal of the whole breast, with the understanding that if a microscopic examination shows evidence of cancer, a more extensive dissection will follow within a few days. And if in serious doubt, I do not hesitate to recommend as wide removal as if I were certain of the diagnosis, even though the microscope may subsequently show that the disease is not malignant. The plan of having frozen sections examined while the operation is in progress, is not to be relied upon, as unless a positive result is obtained, it may very well be that a more extended examination of the whole breast will show evidences of cancer, when none can be found at the moment from the small portions removed for that purpose.

Book Reviews.

SEXUAL DEBILITY IN MAN. By F. R. Sturgis, M. D., Formerly Clinical Professor of Venereal Diseases in the Medical Department of the University of the City of New York : Visiting Surgeon to the Venereal Division of the City (Charity) Hospital, etc. New York : E. B. Treat & Co., 1900. Price \$3.

This book, which is "gratefully dedicated to the sexual cripples of the United States whose infirmities have in part contributed to the support of their obliged friend the author," is really a very interesting offering. The engaging frankness which marks its dedication is shown throughout its interesting pages, where the writer's opinions, though occasionally at variance with those usually accepted, bear evidence of ripe experience. No more important subject of late years has interested the medical mind than the study of, particularly the functional diseases, of the genito-urinary system. Formerly the knowledge of that subject was limited to the pathology and treatment of a few principal diseases, those supposedly requiring rather heroic measures; all other symptoms were attributed to hypochondriasis. In consequence of the indifference or ignorance on the part of physicians, many cases

requiring nice discrimination and scientific treatment fell into the hands of the charlatans. The careful study of sexual neuroses and their intelligent treatment have rescued many patients from melancholia, as well as restored them to natural, normal conditions of sexual function. Thus in the chapter on masturbation the author has ably combated that time-honored belief, still prevalent among the laity, that such indulgence is the prelude to mental and physical degeneration, or that, even though its indulgence in youth was inconsiderable, it still promised severe punishment in later years. Spermatorrhea has been separated from pollutions, aiming to show that the two are separate diseases, and that a "spermatorrhic" is not doomed to impotence and sexual uselessness. The book is exceedingly well written and interesting throughout, and the author has added much to its value by drawing liberally from the works of others, even though he might not agree with them.

HUMAN PLACENTATION: AN ACCOUNT OF THE CHANGES IN THE UTERINE MUCOSA AND IN THE ATTACHED FETAL STRUCTURES DURING PREGNANCY. By J. Clarence Webster, B. A., M. D., Professor of Obstetrics and Gynecology in the Rush Medical College, etc. With 233 Illustrations. W. T. Keener & Co., Chicago, 1901. Price \$3.75.

This work is a comprehensive study of the human placenta, and contains a full account of the changes in the uterine mucosa and in the attached fetal structures during pregnancy. In the course of the investigations made by the author during the space of eleven years, he has examined the pregnant uterus during almost every stage: during labor, abortion, uteri removed by Porro-Cæsarian section, as well as extensive examinations in pregnant animals. The book is illustrated with many drawings and micro-photographs made by the author, and the whole is a product highly creditable to the publisher. Such a work, representing painstaking observations, the careful search for facts, instanced by repeated examinations of different specimens and continual verifications of results, becomes of inestimable value in the development of our science. One can seldom predicate the practical utility of the recognition of a single new fact in anatomy or physiology of a single organ in the body. It paves the way for future work, the scope of which can never be estimated at the time, hence the value of

research, and our best commendation to the skill and patience of this student of the human placenta, who has tried to prove or disapprove information previously possessed as well as add the results of his own observations.

PULMONARY CONSUMPTION, PNEUMONIA, AND ALLIED DISEASES OF THE LUNGS. By Thomas J. Mays, A. M., M. D., Professor of Diseases of the Chest in the Philadelphia Polyclinic; Visiting Physician to Rush Hospital for Consumption. Illustrated. New York; E. B. Treat & Company, 1901. Price \$3.

The author feels that, in this day of rapid book production, no one should further impose upon the medical public with a new volume without very good reason for so doing, and in this instance the writer naïvely confesses that he has justifiable cause. He certainly brings forward ground for endless discussion and experiment in his proposition that pulmonary consumption, pneumonia, and allied diseases of the chest, which have hitherto been always regarded as distinctly diseases of the lungs, are originated by causes quite external to the respiratory organs. In other words, pulmonary phthisis is primarily a neurosis, the disintegration of the lung tissue being secondary; so also pneumonia and other acute pulmonary diseases are closely identified with disorders of the nervous system. Depletion or undermining of the nervous system will sooner or later engender some form of pulmonary disorder. Remedies of any value in pulmonary phthisis must be those which act directly upon the nervous system, chief of which to be recommended is the subcutaneous injection of a solution of silver-nitrate over the vagi in the neck, and the internal administration of large doses of strychnia. The author very ingeniously attempts to show the connection between various forms of diseases of the nervous system, ranging from locomotor ataxia to leprosy, and the subsequent involvement of the pulmonary organs. Pneumonia is to be treated with applications of cold, either in the form of icebags or packs, which not only contracts the pulmonary vessels, but softens and dissolves the exudate. Strychnia is given freely, and should this treatment not relieve the oppressed breathing, cyanosis, and impending pulmonary œdema, resort should be made to that forgotten art of venesection, which should be employed with-

out hesitation. This opinion concerning blood-letting is held still by many, but practiced by few. Capsicum is referred to as one of the most effective diffusible stimulants, and is recommended in a "typical pneumonia," with low, muttering delirium, comatose tendency, carphalugia, etc.; particularly indicated in alcoholic cases, to which class it may be administered in large doses. The probable connection of these pulmonary conditions with a distinct nervous disease as a causative factor is extremely interesting, viewed from any standpoint, and we are not able to judge from the writer's modest statistics that the treatment produces marvelous results. There is, however, something very significant in the fact that patients, particularly in the early stages, did receive apparent benefit from the silver-nitric injections: cough less, night sweats ceased, digestion improved, and a decided increase in the bodily weight. So far as the treatment of pneumonia and bronchitis are concerned, a good homeopathic prescriber would undoubtedly show better results than would follow any known treatment at the present time. The author in a very interesting manner offers a working theory which has interested him for thirty years, and those interested in the treatment of pulmonary diseases will do well to study these observations offered in the work under consideration. In addition there are excellent chapters on physical diagnosis of each disease considered.

TRANSACTIONS OF THE FIRST SESSION OF THE SURGICAL AND GYNECOLOGICAL ASSOCIATION OF THE AMERICAN INSTITUTE OF HOMEOPATHY.
Held at Washington, D. C., June 18, 19, 1900.

This offspring from the parent stem is an extremely vigorous progeny, and should its growth and development continue through successive years on a plan proportionate to its first season's promise, it will undoubtedly be one of the best societies of its kind in this country. It is extremely significant to note the growth of surgery in the homeopathic school. Professor Helmuth, at the first meeting of this society, recalls that at the Homeopathic Medical College of Pennsylvania, in 1853, during his three-years' course there were two surgical operations performed, one for a sebaceous cyst of the scalp and the other for phimosis, and what surgical knowledge he acquired

was surreptitiously, attending clinics at the hospitals of the dominant school. A study of the papers presented before this society would hardly indicate that the homeopathic profession had ever had any difficulty in developing the science and art of surgery in its own ranks. The contributions are of such excellence as to pass favorably any criticism, even though tinged with prejudice. Such work adds to the general medical knowledge, and it is valuable in that it presents to our critics labor that is done for the most part on common ground, the results of which they cannot ascribe to coincidence or offer as another indication of the wonderful recuperative powers of nature; those two arguments with which they have heretofore so often waved aside our claims for therapeutic success. They have severely criticised our lack of pathological and surgical knowledge, but what may have been true years ago is changed, and we are now making surgical history.

INFANT FEEDING. By Dr. Joseph E. Winters. New York: E. P. Dutton.

This little volume is very excellent so far as it goes, and it does not go far. It teaches, presumably the mother or the nurse, to prepare food for an infant which is to be reared artificially. It also contains tables which show the manner of modifying cow's milk so that at certain periods it will bear a proper approximate ratio to mother's milk. The author does his work well, and states his conclusions very decidedly about what should and should not be given to infants. We regret that the very capable writer saw fit to follow the fashion now prevalent with the specialists in pedology in this city, to write domestic works on infant feeding. As the author must know, you might as well supply the mother with formulæ and prescriptions for various stages of infantile diseases, and expect her to use her judgment in applying them, as to give her an opportunity to experiment with varying percentages of fats, proteids, water, and sugar of milk. We quite agree with all that he has said, but he gives no directions in case of failure; no symptoms to guide the mother in case of impending danger. Presumably a physician is to be summoned, but he should be consulted first, and it is quite a part of his business to advise in these matters. These books do get into lay hands,

and become a source of never-ending annoyance to the attending physician. We therefore wish that the distinguished writer, whose work is well known, had written something more extensive, which would, we are convinced, be of great help to his medical brethren.

TRANSACTIONS OF THE HOMEOPATHIC MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA, 1900.

The report of the proceedings of this society makes a volume of nearly five hundred pages, which is highly flattering to the homeopathic profession of Pennsylvania, as showing the interest taken in their institutions. The contributions are of a high average degree of excellence, and are for the most part ably discussed, and are valuable additions to medical and surgical progress.



ANNOUNCEMENT.

Judging from the comments of those who have seen the manuscript, no more essential addition to homeopathic literature has been published than Jousset's "Practice of Medicine," which we will review in our next issue. Jousset is the foremost consulting physician of France, was president of the last International Congress. The book embodies results of fifty years' experience. Every page breathes forth his personality. He not only gives the remedy used and the potency, but his why and wherefore. He has written forcefully and of his vast personal experience. This is the third edition; the first two were in French, and the translation is from author's unpublished manuscript, specially rewritten for the translator, Dr. Arschagouni.

Dr. W. H. King writes again on "Electro-Therapeutics." The author is assisted by Professor Samuel Sheldon, Professor of Physics and Electrical Engineering in the Brooklyn Polytechnic, who writes on electro-physics, and by Professor Walter Y. Cowl of the Physiological Institute of Berlin, on the electro-physiology and the physics of the X-ray.

Translations.

DILATATION OF THE CERVIX.

Krummacher (Berl. klin. Woch.) believes that when the dilation of the cervix has to be undertaken without delay, the use of Champetier de Ribes' bag has advantages over all others. He uses the largest bag which can be introduced (No. 1 to 7), and finds that when made of thick mackintosh with a rubber covering it is not likely to become damaged. It should not be kept in a solution or boiled, but after use it must be thoroughly washed with soap and brush, then well rinsed with corrosive sublimate solution, and hung up in a not too dry place. The introduction of the instrument is not very easy, and the author describes the method he adopts. The patient is put into a lithotomy position, or merely lies on her back with the buttocks at the edge of the bed (in Germany a left lateral position is very rarely used). (a) When the cervix is contracted: He advises dilatation at first either with dilators or with tampons; the former must be used where time is to be gained, and when great danger accompanies delay. The latter he considers safer when there is no urgency. Careful aseptic precautions precede the tamponage. (b) When the cervix is dilated (1) to admit one finger: A speculum is introduced, the cervix secured by vulsellum forceps, and the bag, held firmly by means of special forceps, and well greased with lanolin, is passed into the cervical canal. It must be slowly introduced. As soon as the neck of the bag is in the canal it must be securely steadied with one hand, while each blade of the forceps is very carefully removed with the other. The bag of membranes is in danger of being burst, or the whole instrument of slipping out again, if this is unskillfully performed. The nurse now injects the bag by means of a syringe, while the operator generally helps the fluid into position by massage of the bag. As soon as it is sufficiently full there is no more danger of displacement. (2) When the cervix is dilated to the size of a half-crown, the posterior and anterior lips of the cervix are seized and pulled down to the vulva. Then one proceeds as above. (3) When the cervix is more widely dilated the left hand is used as a guide and speculum, lying on the posterior lip. Great care must be exercised to prevent the membrane from rupturing with this method. As indications for the use of the bag he puts eclampsia in the first place. He has had little experience of its use for transverse presentations, with

early rupture of the membranes, and of placenta prævia. Its use is to a certain extent prevented when the presenting part has advanced too far. In recounting a few cases, he dealt with 8 cases of eclampsia, 1 case of chronic nephritis with heart trouble, 2 cases of meningitis, 1 of placenta prævia, 1 of premature detachment of the placenta, 2 of chorea gravidarum, and 2 of "fever." The duration of dilatation with the bag was from two and one-half to thirty hours. Three mothers died, 1 an eclampsia case, and the 2 meningitis cases; while 6 out of the "eclampsia" babies were stillborn. All the other children lived.

TUBAL GESTATION.

Gottschalk (*Ibid.*) showed two specimens of tubal pregnancy at the Berlin Medical Society. The history of the first specimen was as follows: A young woman (aged thirty-five) had her first and only pregnancy up to the time of the present illness, thirteen years ago. Eight years ago her uterus was curetted, on account of pain. On January 19, 1900, she was seized with acute pain in the lower part of the left side of the abdomen and vomiting. The pain spread to the right side on the 20th, and during the night of this day she fainted three times. On the 22d a practitioner who was called in, found her collapsed; pulse small and scarcely perceptible; dyspnoëic; in great pain, and the abdomen distended. The diagnosis of extrauterine gestation was made, and Gottschalk was called in. He found that there was a left tubal pregnancy, with hemorrhage into the peritoneal cavity. He operated, and found the condition as anticipated, and removed the specimen. The patient made a good recovery. The left tube was the seat of gestation. The tube had ruptured, and the ovum had become stuck in its largest diameter into the opening, thus plugging it completely. The ovum measured 5 c.cm. in the two largest diameters. The surrounding conditions show old pelvic peritonitic adhesions, and fresh inflammation, binding the ovary to the isthmus tubæ, and this caused a narrowing of the flat expanse of the broad ligament. The history of the second specimen was: A unipara, aged 33, had enjoyed good health, save for a retroflexion, since her pregnancy eight years ago. She had menstruated regularly, but the last period was a week overdue, when irregular hemorrhage set in, and the patient complained of a sensation of "drawing" on the right side of the abdomen. On examination it was found that a dense mass was situated in the neighborhood of the right tube. This proved to be a ruptured tubal gestation, and the specimen

showed a large opening in the tube, which was plugged by a hemorrhagic impregnated ovum. Although the opening was very large, there was scarcely a teacupful of blood free in the peritoneal cavity. Gottschalk pointed out that both these patients owed their lives to the fact that the ovum, in trying to escape, plugged the tubal opening, and thus arrested the hemorrhage, which probably would have proved, under other conditions, fatal.

TRIPLETS: SINGLE PLACENTA.

Saniter (*Zeitschr. f. Geburtsh. u. Gynäk.*) recently exhibited before the Berlin Obstetrical Society a placenta from a case of single ovum triplets. Only three similar cases have been recorded (Credé, Winckel, and Von Erlach), triplets usually signifying a pair of twins from a single ovum and a fetus from another ovum. In Saniter's case all three twins were males and each measured about 12 1-2 inches; all were breech presentations, and were delivered within three hours.

ANÆSTHESIA OF THE SPINAL CORD DURING LABOR.

M. Doléris, M. Malartie, and M. Dupaigne sent certain notes upon the employment of spinal anæsthesia to the Paris Academy of Medicine, and at the meeting held on January 22 M. Guéniot read a paper founded upon the notes of these observers. He stated that if there was injected into the lumbar sub-arachnoid space 0.01 centigram of cocaine in solution, a localized anæsthesia was produced, affecting the whole of the body below a line passing round the umbilicus. An injection of this kind given to a woman in labor did away with the pains caused by the contractions of the uterus and by the passage of the child. Furthermore, instead of delaying the course of labor it seemed to accelerate it. The anæsthesia lasted for about one and a half hours, and the only toxic phenomena hitherto observed had been slight cramps or trembling of the limbs, a headache, which, however, soon passed off, a little sickness, and a small rise in temperature. These injections were contra-indicated in women with affections of the heart or of the great vessels, in any chronic disease of the respiratory organs or of the central nervous system, and, further, they should not be used unless perfect asepsis during the puerperium were obtainable. M. Guéniot drew attention to certain

special contra-indications relating to the rate of labor, to the number and force of the uterine contractions, and, finally, to the necessity, or the contrary, for manual intervention within the uterine cavity. These three last contra-indications arise from the fact that cocaine is a powerful stimulant of uterine contractions. Indications for the use of cocaine in labor are as follows: (1) any obstetrical operation necessitating the use of anæsthesia, except such as entail the introduction of the hand into the uterine cavity; (2) excessive pain, which sometimes occurs in labor; (3) delayed labor owing to feeble or irregular contractions; and (4) conditions likely to give rise to hemorrhage, such as uterine inertia or vicious implantation of the placenta.

VAGINAL HYSTERECTOMY AND RESECTION OF THE VAGINA IN UTERINE PROLAPSE.

Axel Wallgren (*Finska Läkare Handlingar*) states the results he has obtained in the Helsingfors clinic. Of nineteen cases in which vaginal resection was practiced, fourteen remained well up to seven and a half months and two years eleven months after operation, whilst five had further prolapse. By ventral fixation the same per cent. (twenty-six per cent.) of failures was met with. Wallgren recommends that in patients before the climacteric, unless there are absolute indications for hysterectomy, ventral fixation plus resection of the vagina is the best method to employ. At or after the menopause, either ventral fixation or hysterectomy may be favorably practiced, but if any weakness of the abdominal walls is present it will be found best to perform vaginal hysterectomy and then resect the vagina.

DIFFICULTIES AFTER PERFORATION.

Bröse (*Zeitschr. f. Geburtsh. u. Gynäk.*) delivered a primipara, aged twenty-eight, about term. The soft parts were very rigid, the pelvis of the simple flat type, the conjugata vera three and three-fifths inches. There seemed to be a miscalculation of the pregnancy; the last period was seen in the middle of April, 1899; on February 23, 1900, the fetus seems to have died; on March 3 labor pains set in; the patient had taken hot baths. Two days later Bröse was called in, the os was dilated, the membranes unruptured. On breaking them sanguineous fluid escaped, as usual when the fetus has died.

A few hours later, as the head had not entered the pelvis, he performed craniotomy. The cranioclast was found necessary, the head was drawn down to the vulva, but the shoulders could not be pulled into the pelvic cavity. So rigid were the soft parts that the arm could not be brought down nor the thorax perforated. Decapitation was performed, then one arm was drawn down; on traction it was torn off. One foot at length was reached, and, on turning, the trunk was delivered. The bloodless and brainless fetus weighed very nearly eight pounds. Bröse remembered a second case in his practice where delivery after perforation alone was impossible. It was at a patient's eighth confinement, the pelvis was normal, but the fetus was of great size. It died early in labor; perforation was performed, but only the head could be delivered. Then Bröse decapitated the fetus, brought down an arm, and delivered successfully. The fetus, without the brain and after much loss of blood, weighed over twelve pounds.

ABDOMINAL HYSTERECTOMY FOR CYSTS AND SOLID GROWTHS OF THE OVARY.

Quénu and Longuet (*Rev. de Chir.*, July, 1900) report nine cases in which total abdominal castration was successfully performed in the treatment of ovarian disease. Removal of the uterus, together with its appendages, is held by the authors to be a legitimate operation in certain cases of morbid growths of the latter organs, and it is pointed out that according to the results hitherto attained such treatment is free from very serious risk, the mortality not being augmented by the association of hysterectomy with extirpation of the ovaries. Total abdominal castration practiced in cases of morbid growths of the appendages presents, in the authors' opinion, great technical advantages, such, for instance, as the possibility of removing ovarian cysts that are bound down by extensive pelvic adhesions, the facility in obtaining a free pedicle, and, above all, the feasibility of effecting a very satisfactory autoplasmic restoration of the floor of the pelvis. It affords security against post-operative accidents, especially intestinal occlusion. In addition to these advantages hysterectomy for tumor of the appendages alone affords in some cases any prospect of a radical cure. This operative method of dealing with disease of the ovaries is indicated by the following conditions: (1) Ovarian cysts and tumors complicated by inflammatory uterine, periuterine, and tubal lesions; (2) ovarian tumors and cysts associated with neoplastic degeneration of the uterus, whether such

degeneration be independent of the ovarian disease or the result of the extension of this disease to the uterine parenchyma; (3) in cases of bilateral cysts and tumors of the ovary in which hemostasis is rendered difficult by the enlargement and friability of the pedicle. The contra-indications of the operation are (1) a unilateral cyst in a young woman, (2) when with bilateral ovarian disease the uterus is healthy and the pedicle is capable of being readily secured; (3) when the pedicle can be rendered freely accessible by a more simple procedure.

RELATIONS BETWEEN THE NOSE AND THE FEMALE SEXUAL ORGANS.

A. Schiff (Wien. klin. Woch) discusses this subject. Fließ in 1897 published a book with this title, in which, after restating the fact that in menstruation there regularly occurs swelling and congestion of the nasal lining, he says that this change affects two special points, the front end of the lower turbinate and the tuberculum septi, which are not only swollen but specially sensitive. These cells he calls the genital spots. These points have special relations to the pain in those dysmenorrheas which do not end with the onset of the flow and the pain can be stopped by cocainizing these points, hypogastric pain by the turbinate and sacral pain by the tuberculum. Starting from a skeptical standpoint to test these statements, Schiff ended by being convinced of their absolute accuracy. His cases were got from the clinics of Schroetter and Chrobak, and were carefully selected by excluding all in which the pain was erratic and did not regularly continue for whole days at each period, and he was very careful in avoiding any possibility of "suggestion." He painted the genital spots during the pain with 20 per cent. cocaine solution, and of 47 cases he could regularly produce cessation of the pain in 34. Some cases he observed for months and had more than 200 positive results with cocaine. So little cocaine was used that there was no question of constitutional effect, and he got the same result with three to five per cent. solution if he first contracted the nose lining with supra-renal extract. The pain hypogastric and sacral could be painted out bit by bit by taking the genital spots in succession. In 17 of the positive cases he in the menstrual interval cauterized the genital spots with trichloroacetic acid or electrolysis, and 12 had no return of the dysmenorrhea, 3 being under observation as long as from one and one-half to two and one-half years. In the other 5 he thinks the cauterization was probably not complete.

Of the 13 negative cases 9 had been examined gynecologically, 4 had fixed retroflexion, 2 adnexal disease, and 1 parametritis. Two with normal pelvic organs had marked hysteria. Of the 34 positive cases 24 had been examined; 9 had approximately normal organs and 15 marked pelvic disease, mostly inflammatory. Many of the cases had been under gynecological treatment. Perhaps the strongest confirmatory evidence of the constancy of the relation of the genital points of the nose to the pelvic pain was given by a series of experiments beginning with the following observation made on the first patient treated from Chrobak's clinic. The woman had a large adnexal swelling on the left, and when, in presence of several of the staff, he touched the left turbinate with the cocaine plug, she, without knowing what he was looking for, said, "That hurts me so down here," pointing to the left hypogastrium. This was repeated each time, but with the addition that it was not so sore, till the anæsthesia was complete. A second patient, on whom Chrobak had a week before done a ventrifixation for fixed retroflexion, had severe hypogastric dysmenorrheal pain. When the right turbinate was touched she cried out "I feel that down here. That hurts so much down here," pointing to the right hypogastrium. The left side gave like results, and when the tuberculum septi was touched she called loud out "My back, my back!" She had otherwise no sacral pain. This experiment was repeated by Schiff and by several others, and gave constantly the same results. The details of 2 other like cases are given, and of 16 women 12 regularly gave these results. In the intermenstrual period this phenomenon could not usually be elicited, but in a few cases with intermenstrual pain it could be got. The importance of this point, especially in the dysmenorrhea of virgins, is considerable, and in particular the cocaineization may be used as a test of the nature of the dysmenorrhea. The application must of course be made exactly by exposing the genital spots by a speculum. Fliess had pointed out a corresponding relation between the anterior end of the left middle turbinate and certain gastralgiæ, and Schiff was able to confirm this by several observations.

CANCER OF THE OVARY AND ITS TREATMENT.

Estor and Puech (*Rev. de Gynéc. et de Chir. Abdom.*) publish a valuable monograph on this subject. They conclude that, though ovariectomy for cancer involves much danger, it is not so great as to make the surgeon renounce the operation in every case, for the mortality is not higher than in abdominal

operations in general for cancer. In the case of hysterectomy for uterine cancer the percentage of deaths amounts, according to recent statistics, to from 15 to 23 per cent. The percentage of deaths after ovariectomy for cancer, according to the statistics of the last ten years, is 21.3 per cent. Recurrence, the authors admit, occurs in over half the cases (59 per cent.); but the same unfavorable results are seen in the operative treatment of the cancerous uterus; whilst many patients live for many years, unoperated cases die speedily. The cancerous ovary must not be removed unless clinical research and an exploratory incision, if necessary, show that the disease, as developed at the time of the operation, can be totally extirpated. Estor and Puech disagree with Freund, who does not think close adhesion to the viscera an insuperable objection to ovariectomy.

PUERPERAL SEPTICÆMIA FROM TUBAL DISEASE.

Massen (Vratch) raised a discussion last year at the Obstetrical Society of St. Petersburg on a fatal case of puerperal septicæmia in a young woman. The labor was premature and lingering, but the rapidly fatal septic changes which followed could not be attributed to want of antiseptic precautions. There was a patch of gangrene on the fundus uteri, raising up its serous coat, the endometrium was sloughy. The ovaries were embedded in old false membrane which attached them to neighboring organs. The right fallopian tube was distended at its extremity and contained a dirty-colored fluid, whilst pus escaped from the left tube when it was pressed. Massen concludes that old salpingitis, most likely of gonorrheal origin, had infected the maternal placenta. Strogoneff, in discussion, thought this explanation invalid, for suppurating salpingitis would have prevented pregnancy. The puerperal infection was rather due to gonococcal auto-infection by germs lying latent in the genital tract and becoming virulent after parturition. Ott agreed with Massen, for conception could have occurred with only one tube left patent, and that tube might easily have become obliterated during gestation.

PRIMARY TUBERCULOSIS OF THE VAGINA.

Jorfida (Rif. Med.) reports the case of a young married woman without any known family history of tubercle, who

shortly after being delivered of a child developed tubercular ulceration of the vagina, with secondary glandular infection. The husband was healthy and free from any sign of tubercle. The woman showed no signs of tubercle elsewhere. The probable source of infection was a woman dying of pulmonary phthisis whom the patient was in the habit of visiting before her confinement. The tubercle bacilli (which were found in the vaginal secretion and in the ulcer) probably first gained a footing in the small lacerations which took place during parturition. As no improvement followed ordinary medical treatment, the diseased surface was freely scraped and scarred with a cautery, after which cure followed.

TRANSPLANTED DERMOID CYST.

Subbotic (Centralbl. f. Gynäk.) reports a case where a woman, aged fifty, suffered from an abdominal tumor of the size of a child's head for six years. It was movable and fluctuated, and seemed to be completely independent of the genital tract, so it was diagnosed as a mesenteric cyst. An operation was performed, and an ovarian tumor discovered. Its pedicle was the omentum, and the left ovary was wanting. It seemed clear that torsion of the pedicle had occurred, and the tumor was afterwards nourished by the ointment, the pedicle coming asunder.

LESIONS PRODUCED BY THE INTRAPERITONEAL RUPTURE OF OVARIAN CYST.

Anché and Chavannaz (Arch. de Méd. Expér.) remark on the importance of the nature of the contents of ovarian and parovarian cyst in relation to the diagnosis of cases of rupture of these growths. The fluid may disseminate elements of new growth formation throughout the peritoneum; it may also give rise to peritonitis by distributing organisms throughout the cavity; or thirdly, it may give rise to certain secondary visceral changes. In the course of its removal it passes through the excretory organs. The liver and kidney may in this way be affected. Duncan has demonstrated fatty degeneration in such cases. To study the question of pathological changes in these organs the authors have injected cyst contents into the peritoneal cavity of rabbits. When the animals survived the fluid was absorbed after a more or less lengthy period, according to its composition, the liquid portion first, then the solid.

In the peritoneum œdema infiltration and subserous hemorrhage were noted; in the liver there were found parenchymatous changes (necrosis, cloudy swelling, and hyaline degeneration) and sclerosis. Similar changes were present in the kidneys, though here the parenchymatous predominated. These alterations are not due to any microbic infection, but to a certain toxic influence possessed by the cyst contents.

SPONTANEOUS AMPUTATION OF TUBES IN AN ADULT.

Ries (*Centralbl. f. Gynäk.*) reports a case of some interest, as it occurred in a woman who had recently borne children. There was a tumor the size of a goose's egg in the pelvis; for this abdominal section was performed. At each cornu of the uterus was a small stump of a fallopian tube. The distal end of the right tube was found converted into the pelvic tumor, in fact it was a hæmatosalpinx. The distal end of the left was atrophied, the left ovary healthy. Recovery was rapid. The amputation must have been caused by peritoneal adhesions. Possibly the left tube was dragged up by the uterus at the last pregnancy and contracted firm adhesions. After labor it was dragged in and sundered during involution. As for the right tube, there had evidently been torsion, the cause of the hæmatosalpinx. Ries showed a specimen of a fallopian tube which had been twisted by adhesion to the vermiform appendix. Dudley has observed similar cases, also an instance of the reverse condition, the appendix being amputated by adhesion to the tube and subsequent twisting. Peterson, in removing a right pyosalpinx, found the left tube represented only by a stump and the corresponding ovary was missing. Not liking to disturb the surrounding parts, he did not search for the missing parts high in the peritoneum.

VAGINAL AND ABDOMINAL CÆLIOTOMY IN TUBERCULOUS PERITONITIS.

Baumgart (*Deut. med. Woch.*) reports 36 cases treated in Löhlein's clinic since January, 1895. In 9 vaginal incision was made, one following and one followed by abdominal incision. Four were nulliparous. In the case followed by abdominal incision it was found that the adhesions could not be broken up so as to drain the peritoneum. The other was done nine days

after the laparotomy to relieve the distress from the rapid re-accumulation of fluid. Uncomplicated cases were from nine to twenty-two days in bed after the operation. In abdominal incision a small opening gave all the advantages, and avoided the drawbacks of a large one. Of 24 cases operated before 1898, 13 were well and completely fit for work, 1 being a peritonitis sicca. Two had improved and 9 had died. Of 11 later cases, 5 are completely well, 4 better, and 2 dead. The results of the vaginal and abdominal methods differ little in their proportions of cure and death, and the relatively less shock and other advantages of the vaginal incision make it a preferable method when it is possible by it to drain the peritoneum. The diagnoses of tubercle were confirmed by the microscope.

EVOLUTION OF THE NEPHRITIS OF PREGNANCY.

Gaucher and Sergent (Rev. de Méd.) confine the term "nephritis of pregnancy" to the results of auto-intoxication, and exclude from the category both nephritis due to compression of the ureters by the enlarged uterus, and also the results of puerperal infection. There may possibly occur during pregnancy an albuminuria due simply to blood dyscrasia without nephritis, but this, if prolonged or repeated, must ultimately lead to definite renal lesions. Certainly, marked albuminuria may disappear completely for a time, but it tends strongly to return with recurring pregnancy, and to leave at last incurable lesions of the kidney. In other cases, in addition to albuminuria, more definite symptoms of nephritis develop, such as general oedema, diminished quantity of urine with high specific gravity, the presence of tube casts in the urine, uræmia. Generally after a subacute stage, or after latent periods with exacerbations in pregnancy, the symptoms become those of interstitial nephritis with high arterial tension, hypertrophy of the left ventricle, and the presence of the gallop rhythm. In the latest stage, if the patients live, the cases are indistinguishable from ordinary arteriosclerosis. The gallop sound often develops suddenly, and is believed to be the best indication of the presence of interstitialization. Post mortem the kidneys are found to vary in appearance; they may be small and red, with cysts and granulations, or large and white without cysts or visible granulations. But in both cases they are hard and firm, and have a capsule adherent to the parenchyma. Histologically, islands of sclerosis are found. Five cases are recorded to show that interstitial nephritis may date from pregnancy. It is concluded,

then, that gravid nephritis of autotoxic origin, and therefore primarily epithelial, becomes under prolonged intoxication, or after repeated attacks, a mixed nephritis, with a progressive tendency to predominance of the interstitial changes. Thus, the animal poison which gives rise to this auto-intoxication is comparable in its effects to mineral poisons, such as lead.

TORSION OF PEDICULATED UTERINE FIBROID.

Schwartz (*La Gynécologie*) reports a case where a woman, aged forty-eight, free from uterine hemorrhages, was seized with acute pain in July, 1899, all the symptoms of peritonitis developed. In February, 1900, she came under his treatment. He detected a fixed and very hard tumor, which reached to the left hypochondrium. At the operation it proved to be a uterine fibroid of a subperitoneal type, with twisted pedicle.

ADENOID DISEASE (EROSION) OF THE CERVIX IN PREGNANCY AND LABOR.

C. Hennig (*Deut. med. Woch.*) points out that the finger may take for normal a cervix which the speculum shows ulcerated or everted. The change is a glandular hyperplasia, which, without destroying it, makes the surface epithelium thin and transparent and easily abraded by examination or coitus. It may under irritation give place to suspicious new growth. It may take on a permanent form—*molluscum colli uteri*—with pain, pressure on bowel and bladder and bleeding, mimicking cancer, but permanently curable by amputation. In pregnancy the disease gives trouble largely, the continual discharge slimy or bloody. It can be controlled only by warm douches with boric acid, alum, or silver nitrate. Sulphate of copper is dangerous. Amputation may be done even in pregnancy. It may continue long without pain, but bleeds easily. In the late months the silver pencil can only be used at long intervals; light swabbing with mercury nitrate is better. Severe bleeding needs rest in bed, with coolness, restricted diet, and local astringents. Tamponade may bring on labor. In labor, tears of cervix and vagina occur more readily, and the patient must be forbidden to press, and forceps must never be used till the cervix is fully dilated. In the puerperium erosions show no tendency to heal, and are easily infected. Now douching with copper sulphate 0.03 to 0.06 per cent., with sublimate 1-4000 and idoform bougies give benefit. Sharp spoon and cautery

are needed only in lupus. Usually the greatest satisfaction is got from amputating crescentic wedges from the diseased lips, stitching with fine stitches. Syphilitic ulcers need constitutional as well as local treatment, and malignant diseases need extirpation. Hennig reports the case of a woman, aged fifty-seven, who fifteen years before had a chancre on the cervix. For retroflexion in 1900 she had the round ligament shortened. She had some bleeding before this, but more after, and the fundus was found enlarged. After dilating, a walnut-sized adenoma with cancrioid papillar stalk was removed. She died in two days from uræmia. Post-mortem results negative.

TREATMENT OF PUERPERAL FEVER.

Steiner (*Die Heilkunde*) reports four cases from Biedert's practice during the last two years. As three had right parametritis and the fourth constipation, they scarcely correspond to the term puerperal fever as employed in this country; but the histories are interesting and instructive. (1) On fifth day puerperal fever. Ninth: Thick and tender spot in right parametrium. Douching, vaginal and then uterine, had been bringing down flakes from the uterus. Quinine, 0.5 gram, ice to the abdomen, and opium were ordered. There was a suspicious spot at the base of the right lung. Improvement occurred until the seventeenth day, when she had pain and oedema at the left mastoid process, and an abscess formed. This began to regress before it could be opened. Incipient otitis media regressed when the abscess formed. She again improved till the twenty-sixth day, when she had high temperature, dullness, and weak breath sounds at the right base, pain in right shoulder and left elbow. Douching and quinine were continued, and she had three doses of Marmorek serum. Temporary improvement was followed on the thirty-third day by high fever. When serum came five days later she got ten c. cm. twice a day till the forty-second, and once a day till the forty-sixth, and every other day till the fifty-eighth day. On the fortieth day transitory endocarditic sounds appeared. The temperature fell gradually, and was normal on the fifty-sixth day. The convalescence was short. (2) A primipara, aged twenty-two, was admitted to hospital twenty-nine days after a labor said to be normal. She was up on the eleventh day, and had a few days later to take to bed with abdominal pain. For four days she had had ice compresses and opium. Temperature 102°, pulse 90, abdomen tender, no retching. Opium and icebag ordered. Thirty-first day: Temperature 102°, pulse

120, diarrhea in spite of the opium. Fluctuating swelling in right parametrium. Thirty-fifth day: Temperature as before, tenderness limited to right parametrium. Quinine, 1 gram daily, and free doses of alcohol added to the treatment. Fortieth day: Aphthous stomatitis. Forty-fifth day: Collapse, treated by camphor injections and free doses of alcohol. Forty-seventh day: Pneumonia at right base, treated by cold compresses. Temperature had been a little lower for some days, normal in mornings. Fifty-sixth day: Temperature 102° , 100.5. Again pain in right parametrium. Quinine has been omitted for three days. Fifty-eighth day: Pus in urine. Salol, 2 grams daily given. Sixty-fourth day: Evening temperature 103.4° , serous fluid at right base. Salol stopped for dark urine and bladder washed out daily. Spleen enlarged, quinine, 1 gram daily, repeated. Murmur at heart apex. Icebag to precordia. Sixty-sixth day of diarrhea. Serum ordered as last resort. Sixty-seventh day: Temperature 100.4° . Sixty-eighth: 100.2° ; serum not used. Dismissed recovered on seventy-seventh day. (3) A woman, aged twenty-nine, had pain at lower part of her belly two days after delivery, and in hospital on the sixth day was found to have a right cervical tear into the lateral fornix and resistance in the parametrium. Temperature 104.7° . Douches brought tags of membrane at first, and she had opium, icebag to the abdomen, and quinine. Temperature sank gradually and was normal on thirteenth day. Douche and icebag were omitted, but after being three days normal the temperature rose to 100.2° on the sixteenth day, and on the eighteenth to 101.2° ; while the patient had pain along the left saphena and considerable swelling in the right parametrium. In a few days the parametric swelling diminished, but the leg suppurated. The abscess contained streptococci and required several operations. The bowels had moved every two or three days in spite of the opium. This was omitted on the twenty-seventh day and pulv. glyc. co. substituted. The temperature, however, remained about 100° and the general condition deteriorated. Opium was therefore resumed. From thirty-sixth to forty-eighth day Marmorek serum was injected daily, but abscesses formed at the punctures, a scarlatiniform rash occurred, and temperature rose to about 104° , and with the abscesses and a pneumonia continued so for a week. After more than two months a trial was again given to laxatives instead of the icebag and opium, but the temperature rose and the parametric exudation increased, and not till fully three months were they discontinued. A little later a cystitis with pure streptococcus infection developed. Patient was discharged recovered at the end of six months. (4) A woman, aged thirty-nine, had a rigor on the

second day post partum, temperature 102° , abdomen very tender. Douche, opium, quinine, and icebag were ordered. On fourth day less tenderness. On seventh day, temperature 101° , patient felt that she would be better if the bowels moved. This was got by glycerine injection and stopping opium. From this time the temperature was normal. The gist of the paper is that the opium, quinine, and icebag treatment was very good routine treatment. Quinine, 0.5 gram, given half an hour before intra-uterine douche, prevents the rigor that this sometimes causes. There are cases like the fourth where opium is not suitable. A favorable influence of the antistreptococcus serum was not very clear even in the first case. In the second it missed the opportunity of making a brilliant cure.

DIET DURING LACTATION.

Temesváry (Monats. f. Geb. u. Gynäk.) dieted 216 women who were suckling. For four days he put each woman upon one diet, and subjected her to six changes of diet, each continued for four days. The dietaries were: (1) The subject's ordinary mixed diet; (2) milk diet; (3) diet chiefly vegetable; (4) diet chiefly meat; (5) liberal mixed diet; (6) ordinary mixed diet with about a pint and a half of beer daily. The milk was most freely secreted under the liberal mixed diet, and its relative proportion of fat was largest under the generous allowance of food. Ordinary mixed diet came next, and last came vegetable and animal diet.

TREATMENT OF MYOMA IN DIABETES.

Jahreiss (Centralbl. f. Gynäk) examined a woman, aged forty-eight, II-para, last child fourteen years old. She had suffered from severe menorrhagia for four years, and had become thin and miserable-looking, subject to palpitations and œdema of the feet. For a few months she complained of severe thirst. Anæmia was very marked, with evidence of valvular disease. The urine was loaded with sugar, but without albumin. An interstitial myoma reached to the umbilicus. Manifestly hysterectomy was contra-indicated on account of the condition of the heart and the anæmia. Jahreiss gives that reason, and does not say that diabetes was considered a contra-indication or that the nature of the fibroid would have indicated operative interference had there been no anæmia or cardiac mischief. Absolute rest was enforced, with appropriate diet

and ferruginous tonics. At the end of the month there was some improvement in the pulse, but the sugar remained unaltered in proportion. Then the patient became much troubled with neuralgia, chiefly in the right sciatic nerve; the sugar at the same time began to diminish. The rest had one effect on the fibroid: it caused the hemorrhages to abate a little. Within one year and six months from the beginning of treatment the sugar had disappeared, but the urine now contained albumen, and four months later the patient died of right catarrhal pneumonia. To the last the hemorrhages continued to diminish, but absolutely no change of any kind was observed in the tumor. Jahreiss thinks that the hemorrhages may have had some influence on the diabetes. He states that another patient had sugar in her urine after two severe attacks of epistaxis, though before and shortly after each attack no trace of glucose could be detected. Kleinwachter (*Zeitsch. f. Geb. u. Gyn.*, vol. xliii, Pt. 2, 1901) finds that only six cases of diabetes complicating uterine myoma have been reported, and they include two in his own practice which differed from the remainder in that the fibroid was small, the hemorrhages trifling, and the proportion of sugar in the urine small. More definite knowledge of this subject is needed.

OSSIFYING ENCONDROMA OF OVARY.

Baet, *La Union Medica*, relates a remarkable case, where an extremely tough and deeply lobulated tumor filled the abdomen of a woman, aged thirty-eight, extending for two inches above the umbilicus. It had grown slowly. The patient suffered badly from pressure symptoms, the uterus was pushed far down in the pelvis, and the bladder much displaced. The operation was simple, and recovery rapid. The tumor weighed 14½ pounds. It had a stroma of fiber with cartilage between the meshes; the cartilage was ossifying at certain points.

SPONTANEOUS EVACUATION OF EXTRA-UTERINE PREGNANCY.

Kupffer, *St. Petersburg Med. Wochenschrift*: In the case described a woman of fifty-three evacuated per anum the bones of a fetus from an extrauterine pregnancy ten years before. The bones accumulated twice in the rectum, causing intense pain. Eleven cases are on record of a similar spontaneous irruption of remains of the extrauterine fetus into the intestines.

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A REASONABLE PROTEST AGAINST IMMEDIATE PERINEORRHAPHY.*

BY GEO. CLINTON JEFFERY, M. D.

The discussion of a subject such as the title of my paper indicates to you, in the knowledge that it is a contention upon the unpopular side of an important subject, may justly merit upon your part criticism that may seem just and proper by you, but nevertheless the honest feeling held by me that the continuance of such a pernicious practice as the immediate repair of the perineum after childbirth merits positive reprehension is offered as at least a partial excuse for what may seem to others to be an audacious effort upon my part to challenge the method of practice of a vast majority of my professional colleagues in this special field of labor. It may, however, be said that any subject readily accepted, without discussion or opposition by others, fails often to sharpen ordinary intelligence of the matter at hand, or at least to broaden thought, whether the mental strife lie within the confines of

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matters professional as they apply to ourselves, or, indeed, upon any subjects which are of personal or general interest to others. It is indeed an indifferent question that will admit of an easy acceptance or that will be seriously taken in conformity with the simple unsubstantiated statement of its possible merits or deficiencies alone. Indeed, it may be gainsaid that such questions will hardly stand unassailed in the face of facts proven and accepted as the undeniable axioms of certain established truths, which have been sustained, not by uncertain theory and sophistry, but only after logical and painstaking reflections have established to the unbiased mind the assurance of their merit. It is appreciated, therefore, that while the opinion here given upon an important subject must demand a fair hearing, in view of the plain fact that in most matters of custom and habit beings that are human oftentimes fail in their individual capacity to act independently and alone, and rather blindly follow the imperious dictum of uncertain leadership in whatever direction the stronger mind may incline to direct the weaker one. As I view it, the repair of the perineum immediately after the birth of the child would seem to be embraced within this category. Custom makes it a popular method; although it would seem to my mind that if physicians would inquire within themselves for a logical indorsement of the practice, many who without serious thought and reflection who are now its adherents would renounce the plan of practice thus formed for one that would seem a preferable one in every respect. On the evening of December 15, 1891, I had the honor of reading a paper upon this subject before the American Obstetrical Society at its annual meeting in the city of New York. The paper was received in a spirit of what to my mind, as I now recall it, was one of charity for the writer; and I was then, as I am now, conscious of the unpopular view of this subject which I was endeavoring to uphold; and yet it must not be forgotten in this connection that from all minority opinions since the world began, and in the face of untold numbers of unbelievers, is born all scientific progress and thought, and though they may for the time be silenced by the clamor of the multitude, the truth—if truth it be—which they uphold lives interminably on and onward.

To come at once to my subject, permit me in its support to say that I am opposed to an immediate repair of the perineum when ruptured, and believe that the best interests of our patients and ourselves are fully proven to be better subserved by a more deliberate interference in all cases of such a character. It will, I am sure, be admitted that the perineum in its entirety and anatomical perfection acts as an important and indispensable factor in the maintenance of healthful function of the female pelvic viscera. When the term entirety is used it is meant to express a perfect harmony of arrangement in the fibers of the muscles, as well as a continuous structure of the fascia which largely contributes to the support of the perineal body. Where the perineum is intact in structure, pathological conditions seriously affecting the uterus and its annexa are exceptionally found, while it might be truly said maladies numberless in form and variety are seldom absent where it has first been ruptured and afterwards neglected by an improper repair. To be more explicit, the following distinctive reasons may be given in support of the proposition:

(1) Because the union of such a rupture always constitutes an important operation.

(2) Because it necessitates prolonged exposure of the perspiring, and often at the same time chilly, patient.

(3) Because the lack of efficient assistance and proper illumination are important factors.

(4) Because if the union with sutures is not exact it is even more dangerous than the simple antiseptic treatment of the open wound, as it may give rise to the stagnation of wound secretion in necrotic cavities.

(5) Because during the process of involution the pressure of the heavy uterus upon the newly united tissues through the posterior vaginal wall in most instances produces a partial or complete absorption of the perineal body, thereby destroying its integrity, and in that way defeating the purposes and intention of the operation.

(6) Because the apparent fact that the hasty and ill-prepared performance of any operation, however simple, can never for obvious reasons be compared in value to the period of time when careful deliberation and the best possible conditions of

health and blood may be depended upon to assist in the process of repair, and thereby assure the successful issue of the efforts made in the patient's behalf.

When, may it confidently be asked, will the surgeon ever be called upon in the performance of his professional duties to require for successful healing any better reparative material than in the important undertaking of restoring the floor of the female pelvis. This structure made by the hand of Nature so compact and firm, by the interlinings of carefully arranged muscular fibers, and yet with so much dependent, as regards the patient's future health, upon the positive integrity and careful re-arrangement of these important layers of tissue, the accoucheur, by the stern dictum of present custom, is required under the pain of severe censure by the patient and her presumably numerous and inquisitive friends—and, alas! too often by some unsympathizing and hypercritical professional rival—to perform an operation under circumstances presenting conditions which would be the last to be accepted by a patient (or her physician) requiring many another operation much less important to her future welfare than this. In most cases we find the patient pale and anæmic from the impoverished nutrition of her own tissues, a part of the period of gestation just completed; depressed physically by shock and exhaustion to her nerve forces—a part of a fatiguing and possibly tedious labor,—the tissues of the fetal passage involving the area of the anticipated operation semi-paralyzed and benumbed, due to the long pressure of the descending head of the child; together with such impoverished changes existing within the blood of the mother as to counter-indicate, in my judgment, this as the proper period of time for the performance of this operation or, in fact, any other demanding from the blood reparative materials of a quality equal to the necessities demanded by the importance of the case.

It seems, further, that to appoint for an operation of such serious import to the future welfare of the patient a period when, with the dangers liable from exposure to the surrounding air, her body, perspiring as a result of her painful and tiresome exertions,—when her circulation is unevenly distributed and congestion to the uterus or some other internal

organ is made probable and not to be unexpected,—leaves nothing but just criticism for him who would appoint such an hour for the performance of this or, in fact, any other operation. Besides, appurtenances, proper light and capable assistance are most important and essential adjuvants to the proper performance of the task—together with the after attendance of a skillful and well-trained nurse to carefully catheterize the patient and prevent, as well as expert nursing can make it possible, the entrance of lochia and other extraneous discharges into the co-apted wound—all a luxury which some of the patients whom I have been honored to attend in labor could hardly afford. Permit me to ask right here, Does any physician presume it possible to have his patient's wound heal securely—no matter how carefully and skillfully he may have closed it—if the patient's urine is allowed to saturate the line of intended union, and there lie undisturbed, as is often the case, to undergo decomposition and infect the whole area of operation? Comparatively few women who have been known to bear children in the past, and many yet in the future who may perchance deliver to this benighted world a child who may even become eminent as a doctor, has had the worldly means to employ a nurse capable by education and practice to prevent by careful catheterization this important detail of perineal repair. So universal, in fact, is this operation performed when required at the moment of birth, that there are but few women who do not pass their urine over the closed wound at pleasure, and yet the physician feels that he has done his full duty in introducing the binding sutures and yet neglects to regulate this matter, only second in importance to the closing of the wound itself. It may well be asked, Is this the condition that should characterize the aseptic wound of modern surgery—where it is presumed that the surgeon's highest ideal in the healing of wounds is in the perfection of his own and the patient's cleanliness and care?

My fourth section permits me to repeat in its entirety: "If the union with sutures is not exact, it is even more dangerous than the simple antiseptic treatment of the open wound, because it may give rise to the stagnation of wound secretion

in necrotic cavities." In the surgical treatment of this wound, when fresh, the value of the application of carefully devised and deliberately prepared methods of antisepsis cannot be overestimated, and every means should be provided to defeat the entrance of septic germs and infective particles that may possibly, under the baneful influences of decomposition, become hidden in the interstices of the closed wound. The danger of septic infection under these circumstances cannot be well overlooked, and it is only fair to presume that many cases of septicæmia under the name of childbed fever have been treated after immediate repair of the perineum, when the source contributory to the infection has been secreted within the interstices of a wound supposed to be perfectly compact and securely united. After a very unhappy experience a year or more ago, from what I considered an unjust criticism upon myself in a family where I had deferred operating upon the night of delivery—and yet simply because the patient and her family heard the next day that every other doctor in every case with which they claimed to be familiar had operated at once upon his patient, and with "such wonderful success every time"—I felt, in defense of my remaining reputation and the anticipation of the many unkind strictures that must follow in my path if I lived up to my settled convictions upon this subject, that I must humble myself and follow what I looked upon as a mistaken policy in the practice of midwifery, simply (let me regretfully confess) as a matter of advisability and necessity. At a case of delivery which I attended shortly after the above recited instance I had the misfortune of meeting another case of ruptured perineum. The patient was a primipara, who after a very tedious labor, in which the progress was most discouraging, forced me to the conclusion of delivering her with the forceps. Without much difficulty I brought the fetal head to the vulva where, as is always my custom, I removed the blades and by manipulation soon succeeded in delivering the child. The head being too large, or owing to the sudden distention of the perineum, or from some other cause unexplained to me, a rupture occurred, extending to the sphincter ani, without involving it. A post-partum hemorrhage of unusual severity followed and the pa-

tient was without proper uterine contractions until she was very nearly exsanguineous. Notwithstanding, and having fresh in my mind the unpleasant strictures that had been placed upon me in my previous case, and feeling that although the union might not be as satisfactory as a future and more deliberate operation would certainly make it, I concluded to operate at once. In the co-aptation of the tissue braided silk was used, and the proper and usual means employed in the performance of the operation were faithfully carried out. Fearing that the success of my operation might in a measure depend upon skillful nursing, a nurse who had been employed to my satisfaction in varied surgical operations at previous times was engaged to carry out my instructions and to protect the wound as far as possible from such irritating discharges as might embarrass a proper union of the parts. Early on the third day my patient was taken with a slight rigor, together with a moderate rise in the temperature of the body, which never touched the normal point during the succeeding three weeks, although at no time did it exceed 102° , being at an average temperature of probably 100° or thereabout, throughout the whole time. The lochia remained at all times free and without odor, and the abdomen in all regions had never the slightest degree of sensitiveness whatsoever, while the parametrium, from the first examination to the last, gave certain evidence of freedom from inflammatory conditions of every kind. My judgment, allow me to say, was confirmed upon all of these points by several very competent medical gentlemen who saw the case with me during its progress at different times. The perineum united in a very unsatisfactory way to me, lacking throughout that degree of firmness indicative of perfect muscular restoration, being instead flabby and relaxed, giving, in fact, all of the evidences of an improper union. My deductions in this case point conclusively to the direct entrance of septic materials into the patient's system through the interstices of this poorly healing wound, and it is only a case in point of many others that would be of greater credit to the physician and the welfare of the patient if similar operations were deferred to a season when the patient was better supplied with well-nourished blood, so

essential to the perfect repair of wounds, whether located in the perineum or elsewhere. If this recited case had been one of simple puerperal fever, the temperature would have reached a higher range, there would have been more or less abdominal tenderness, offensiveness of the lochial discharges, and the case would have probably terminated in the death or recovery of the patient within a shorter period of time. If you will permit me, I will repeat section fifth of the classification which I have previously made: "Because during the process of involution the pressure of the heavy uterus upon the newly united tissues through the posterior vaginal wall in most instances produces a partial or complete absorption of the perineal body, thereby destroying its integrity and in that way defeating the purpose and intention of the operation." I will again illustrate this section by referring to another case. During the month of October last I was called upon to attend Mrs. S., a primipara, in labor. The birth was in all respects normal and the child came into the world without the necessity of artificial assistance. In the exit, for reasons of its own, the perineum was torn during overdilatation at the time of passage worldward of the child's head, the tear slightly involving the anal sphincter.

The patient's condition after removal of the placenta was as good as I desired and might, in all respects, have been called normal. I was aware, however, that the perineum was torn, and the nurse, who happened to be of that painfully numerous and officious variety, knew it also, and it was but a few moments afterwards when the family was as wise upon the subject as were the nurse and myself. Because the sister's physician had sewed her perineum at once after birth, I was not permitted to argue or read a paper similar to the one you are now hearing to the family for their conversion, but understood that it was sew—sew—sew—and at once. I yielded, and under the circumstances many a stronger man than I believe myself to be would have done likewise. Ten days after this time, owing to some reasons that are not relevant here, the family requested that I meet in consultation Dr. Charles Jewett, professor of obstetrics, Long Island College, Brooklyn, which request I cheerfully acceded to. Pro-

fessor Jewett examined the patient with much care, and his attention was called to the condition of the perineum, which he pronounced as perfect and as well united in appearance as though it had never been ruptured and repaired. I was doomed to disgrace in one way if not in another, for three weeks after this time, during a painful evacuation of the bowels, the patient felt a sensation as though something had given way. An examination revealed a fully developed, though very small, fistula in ano, due to lack of resistance in that part of the perineum adjacent to the sphincter muscle. This discovery and the announcement of it were too much for the family and the patient, not to say too much for me, and it ended by my resigning any further treatment of the case. Knowing that the family would prefer Professor Jewett to follow me, I was politic enough to suggest that they place the patient in his care; and Dr. Jewett, after having received my cordial consent and concurrence, accepted the charge of the case. The following day he penned me a letter, very thorough in detail, of his findings, from which I desire to give the following extract: "The perineum, as I now believe, was at the time of my first examination fully united; to-day I find that the tension on the new tissue has caused some absorption, and that the perineal body is not quite as complete as when I first examined it."

My personal experience and observation in the repairing of the lacerated perineum have been varied, and the conclusions, reached through many years, which have suggested the subject of this paper to me, have emanated from the generally unfavorable results that have followed my efforts in the immediate operation as compared with those cases where I have operated after the period of involution has passed and the patient has regained a good degree of her former health. I say it unqualifiedly, and without the fear of a sincere contradiction, that no such satisfactory result is even possible after the immediate operation as is equal to the experience of the operator who only operates upon his patient when she has arrived at the proper time, which I believe is never under three full months after the date of delivery. As long as the process of involution is active I do not believe that the perineal

body is ever restored permanently to its original condition. I quote as follows from page 130, "Skene's Diseases of Women," the following: "The restoration of the function of the muscles, as already stated in speaking of general treatment, is the great object of surgical operations for the relief of these injuries to the pelvic floor. It matters not how much tissue may be gathered together and united in the region of the perineal body, it will have no functional action if destitute of muscular tissue. The success of all surgical procedure depends upon the restoration of the muscles, elastic tissue, and fascia, and not the mere uniting of the tegumentary and areolar tissue. In this plastic operation, known as perineorrhaphy or restoration of the perineum, much surgical skill is necessary to succeed. This is true in all operative surgery, and yet special case is necessary in this operation because union by first intention must be secured, or else the operation must fail. In many operations in surgery, if the wound does not heal by first intention, union may be secured by granulation and a perfect result obtained; but in the operation under consideration, if the whole or part fails to unite promptly, partial or complete failure is the result." The following on this subject, also extracted from Dr. Skene's work, is given as conditions necessary for the healing of the wound in question:

"1st. A condition of the wound and the general system favorable to the repair of injuries.

"2d. Perfect coaptation and retention of the parts to be united, and protection of the parts from extrinsic and offending agents during and after coaptation."

If these conditions are all secured success must of necessity follow. The management of wounds is not a matter of blind chance. The process of repair in living tissues is governed by definite laws, which are always the same under identical circumstances. To obtain the conditions necessary to the fulfillment of these laws is often difficult and sometimes impossible—still, the nearer we come to all of the requirements the more surely will the desired ends be accomplished. "The first of these conditions," he continues, "namely, good general health, may be found wanting in many ways and degrees which are too familiar to require notice, but there are some of these

which may be mentioned because they are very often overlooked—preoccupation of the system by some highly taxed function like lactation, for example, and certain deranged states of the nervous system. These certainly have an important bearing upon the healing of wounds, although little, if anything, is said in our works of surgery regarding them. In fact, there is good reason for believing that enfeebled states of the nervous system have much to do with retarding the healing of wounds, even when the general nutrition appears to be normal. We frequently hear surgeons say that patients recover from injuries much more promptly when they have courage and hope without fear, but exhausted and irritable states of the nervous system retard the process of repair, although the patient may be indifferent or perfectly satisfied in regard to recovery. Velpeau, in his work on surgery, page 867, speaking upon this subject, gives expression to the pertinent statement: "When the accident is recent, whatever may be the species of rupture, it is not proper to have recourse to a surgical operation. We must confine ourselves to the approximation of the thighs and repose. The tumefaction and congested state of the parts would not allow of the suture succeeding under such circumstances. If, at the termination of a month or two, the rupture has not reunited, nothing more is to be expected from the efforts of the system, but we must wait until the woman has recovered her strength and until the lips of the wound have cicatrized separately. In Lusk's work on midwifery, in speaking of this subject, he says: "It is true that the object aimed at—which is complete restoration of the perineal body—may not be attained." Cazeaux, in speaking of perineal ruptures, does so in this language: "In case of incomplete rupture extending to the sphincter of the anus, a few points of suture have often been used, but, for our own part, we gave them up long ago because they are painful and liable to give rise to small points of gangrene." In all cases of incomplete laceration I believe it best to abstain from operations of every kind. When perineorrhaphy is to be performed, the question arises as to the best time to do the operation. Dieffenbach advises the sutures immediately after delivery—"for," he says, "at that time the lacerated edges are

still bleeding, it is unnecessary to freshen them, and the whole is resolved rather into a simple dressing than a bloody operation. This course, however, has its inconveniences, for the patient is deprived of a chance for spontaneous cure; the lochial discharge impedes cicatrization, and the diseases to which the puerperal state is so liable often prevent a successful issue," and concludes by specifically saying: "I think it much better, as advised by Roux and Valpeau, to wait until the patient has entirely recovered and defer operating until after the first menstrual return." I also find that Nelaton, the eminent French surgeon, gives his preference against the performance of the immediate operation. My previous paper written upon this subject, as has been referred to, was published in the Homeopathic Journal of Obstetrics of May, 1892. The editor, for reasons which he deemed sufficient, gained from many of the representative surgeons of our school their personal opinions upon this subject. Many criticised not only the article without mercy, but myself also. There were others, however, who had seen the new light, or at least viewed this important subject with sentiments coincident with my own. I may, I believe, be permitted to quote a few extracts:

Dr. Homer I. Ostrom of New York says: "Concerning the question of immediate or remote repair of the ruptured perineum, my voice is entirely in favor of the delayed operation when the injury involves more than the usual extent of tissue—that is, when an operation is demanded to restore the integrity of the pelvic floor. Slight tears rarely demand more attention than the cleansing douche, which forms a part of the modern lying-in treatment, but when a rupture occurs sufficiently extensive to really require an operation, I believe the treatment will be more successful if delayed until several months after confinement." Dr. Ostrom further says: "Immediate perineorrhaphy, when the rupture is an extensive one, has nothing to commend it, and, besides subjecting the mother to unnecessary suffering, contains elements of danger which should not be overlooked. A very principal danger is the method of healing—when healing takes place. I have operated upon many perinei that had been

repaired by immediate operation. In every instance I have found the superficial structures only united, the deeper structures of the perineal body remaining far apart. In such cases it is necessary to re-rupture the perineum and bring its deep as well as superficial structures together. Such cases are dangerous in the false safety they offer the patient, who, thinking everything has been done, allows many pelvic troubles to continue until almost beyond the possibility of treatment."

Dr. Herbert M. Dayfoot of Rochester, N. Y., said in his reply, in part: "I have seen sepsis follow in the wake of the primary operation; I have seen non-union either whole or, in part; and I have seen failure in the effort to restore the perineal body—and yet, strange to say, I favor the primary operation in most cases as being the lesser of many evils."

Dr. O. S. Runnels of Indianapolis, Ind., is quoted as follows: "In the main I indorse Dr. Jeffery's position. For years I have observed that immediate attempts at perineal repair after tedious labor have been futile or attended with unsatisfactory results, and that the secondary operation has been usually called for. Particularly has this been the case where there has been long stasis in the soft parts, resulting in much contusion and ecchymosis. In all such cases union by first intention is rare indeed, and if obtained will be of the lax, flabby, and inefficient kind that will lead you in a few months to doubt whether there was really a union at all. Dr. Jeffery does well to emphasize the fact that involution must go on also in all the tissues adjacent to the uterus, that the vaginal and perineal muscles are thus involved, and that the elements of degeneration are present in so marked a degree at such a time as to preclude a vital union. The dangers of sepsis are imminent. The sutures make foci for the lodgment of septic material, and it is a happy termination when such an operation is not followed by some form of lying-in trouble. Whenever milk leg, mastitis, or the graver puerperal intoxications supervene, it may be taken for granted always that poison has gone into the blood through some abraded, broken, or punctured surface. Far safer is it to leave the parts open, so that they may be irrigated and properly cleansed, thus avoiding the

dangers of pent-up, decaying matters." In concluding his opinion, Dr. Runnels further says: "It will be a step forward when it is established as a rule of practice that the primary operation upon the lacerated perineum is as indefensible, dangerous, and useless as in the primary operation upon the lacerated cervix. I consider it malpractice in both cases," p. 212. These authorities whom I have quoted, and among the others surgeons and gynecologists of our school whose names are eminent and whose professional acquirements are unquestioned, represent fully as strong a protest against immediate perineorrhaphy as pages of ordinary evidence would ever be able to prove the necessity of it.

For the practice of immediate perineal repair to become technically a consistent operation, I would show you the absolute necessity of every physician who presumes to attend in the trials of labor being thoroughly skilled in the performance of a necessarily difficult surgical operation. Every obstetrician under these circumstances must be a gynecologist, and every gynecologist a proficient surgeon. Such a relation as this cannot consistently exist, in the natural order of physical and mental development, and we who as surgeons are possessed of repeated opportunities of practice in this and other equally important operations, attain thereby a proficiency of technical method that must obviously be denied others less fortunate in their professional opportunities and privileges. The laity become far too well acquainted with our professional customs and methods, and the physician under the maintenance of this condemnable practice must attend every case of obstetrics to which he or she may be called, prepared to perform an operation—in event of laceration occurring—that experience and deliberation should have taught him by frequent opportunities for practice and too often without proper surroundings or competent assistance, or be condemned as having neglected the full performance of his or her duty.

My hope is that in presenting this paper you will not be disposed to view me as an agitator, but one who only asks some of you to endeavor to take new views of an old subject; and while it may be conceded that there are some very commenda-

ble reasons for the continuance of the questionable practice of immediate perineal repair (which I am aware is the plan advocated by many of you who are here), yet I feel confident that you will not entirely disagree with me when I venture the opinion that not all of the merit in this case lies upon its affirmative side. Operate in the future at will if you believe it to be the better method of practice, but if you do, examine the patient if the opportunity presents itself to you or can be had after two months of time have elapsed, and you will find, believe me, that in the great number of instances the perineal body will present a very unstable and unsatisfactory condition to you; and with such indisputable evidence to confront you, perchance the question and its advocacy may suffer some changes in your minds to occur. More authorities and further negative reasons might be added than have already occurred to me, but I feel that interest in the subject has ere this time reached a point that limits your attention and patience, and I will close with the single hope that the subject of deferred perineorrhaphy may receive all of the consideration and attention that it not alone demands, but, from the merits that unquestionably uphold its cause, deserves fairly at your hands.

PUERPERAL SEPSIS.*

BY L. L. DANFORTH, M. D.

I have been requested by the chairman of the obstetrical section of this Institute to present to you on this occasion an address on the Pathology and Treatment of Puerperal Sepsis. I shall take the liberty of treating the subject in a general manner, as my experience and thought shall dictate. As practical medical men you are more interested in the proper mode of management of this protean malady than you are in a treatise on its ætiology or pathology. I do not pretend to any special knowledge on these subjects, and I am aware there are men here who know more about either or both of them than I do.

Literature for two decades has teemed with the influence of bacteria in causing puerperal infection. What the recent graduate in medicine does not know about streptococci, staphylococci, the colon bacillus, tetanus bacillus, the gonococcus, and the ordinary germs of putrefaction (saprophytes), is not worth mentioning—I surely cannot enlighten you on these subjects. What you are chiefly concerned in knowing as practical physicians is that puerperal infection is wound infection—just the same as any wound in the body may be infected, take on inflammatory action, produce pus, degenerate, and, if not properly treated, infect the whole organism. Likewise, a wound in the genital tract, or the interior of the uterus itself, if not completely emptied of its contents, may become infected by the conveyance to it of the minute organisms which are called bacteria.

The treatment of the old-time puerperal fever, our modern puerperal infection, has resolved itself into the exclusion of these germs, so far as possible, from the body of the patient, or if by accident they gain an access, to neutralize their effects by energetic measures designed to prevent their activity, to localize the inflammatory action, to remove as far as possible pathologic products, and to support the system against the invasion until it can take up once more its processes in the natural way without outside assistance.

* Read before the American Institute of Homeopathy, June, 1901.

Our first thought in the conduct of a case of labor should be to exclude absolutely all infective material from the genital tract of the patient. If we could be sure of accomplishing this desirable end in every case there would be little need for a paper of this kind on the treatment of puerperal infection, since there would be few cases to treat. But in spite of our most energetic efforts we will occasionally fail to secure perfect cleanliness, and thus our laudable purpose will be thwarted. But I must not lead you to suppose that I hold to the opinion that the doctor is always responsible for the presence of the pernicious microbe. I believe that the patient sometimes infects herself, in spite of our best efforts to prevent her from doing so. The presence of a pus tube antedating pregnancy may be the active agent in producing the infection. Pus which was inclosed in a fallopian tube with closed ends becomes liberated by the mechanical disturbances of the parts incident to labor, is pressed out upon the peritoneum, and so starts an inflammatory process which may be as serious as it is unexpected; I think I have seen in the Flower Hospital a number of cases which had their origin in this way. Another possible and not uncommon mode of infecting a lacerated wound of the genital canal is through the medium of the colon bacillus. We all know how frequent are lacerations of the vulva and vagina—even to the destruction of the recto-vaginal septum for a considerable portion of its extent. How easy to contaminate a vaginal wound with fecal matter! Indeed, it is almost impossible to prevent it. During the manipulations of an ordinary case, unless one is very careful, some contamination will occur. I do not mean to say that the colon bacillus alone is often the cause of puerperal infection, but I do contend that it is one of the contributing factors in the causation of infection for which the doctor should not be blamed; he does not bring it with him, and in spite of his best efforts he cannot always exclude it. And so with the gonococcus. Those of us who practice gynecology to any extent know how prevalent is latent gonorrhea, and how active this disease often becomes under the vascular stimulation incident to pregnancy. I mean by this that the profuse leucorrhœas which we so often see in the course of pregnancy are

merely latent gonorrheas aggravated by pregnancy. The gonococcus may, as a result of the processes of labor or the manipulations incident thereto, gain access to the inside of the womb and there set up an endometritis, truly bacterial in origin; and though perhaps not true puerperal sepsis, it is difficult to distinguish it, for the time being, from this affection.

Mundé relates a case in which he was perfectly sure, by exclusion, that the infection was brought about by the woman herself. She had puerperal sepsis of which she ultimately died, and absolutely no other cause could be found after a careful investigation of all the circumstances surrounding the case, than a felon on the index finger, which had burst shortly before labor, the woman admitting that she had introduced another finger of that hand into the vagina to relieve an itching which she had experienced shortly before her confinement.

I do not bring forth these possible sources of auto-infection to exonerate the physician from the exercise of any and all of those means which are now known to be so essential in the prevention of puerperal infection, but simply to show that there are sources of infection which the physician is not to be blamed for, and thus the more urgently to put him on his guard against those which he can control.

I would like to say a few words, before we take up the subject of treatment, with reference to the diagnosis of puerperal infection. In some cases the diagnosis is so easy that the merest tyro can settle the question without difficulty, but in other, especially the milder types due to a very slight inflammation of the corporeal endometrium, the diagnosis is not so easy—indeed, it is very difficult and will often perplex the most experienced. The true diagnosis can only be arrived at, after a thorough examination, by the method of exclusion. Before coming to a conclusion we should thoroughly examine every organ in the body—the lungs, the throat, the breasts, the digestive tract, especially as regards the state of the bowels. A loaded colon will often be the cause of the temperature rise, and its disappearance will as surely be coincident with the emptying of this canal. In the Flower Hospital we now and then have a case of acute fever occurring dur-

ing the first week after confinement, which gives us great anxiety. After excluding by a careful examination all the general causes of fever and by the absence of some of the characteristic evidence of sepsis, we sometimes find that a dose of quinine, given as a tentative measure for a supposed malarial complication, will establish the diagnosis more positively than any of our thorough methods of examination have been able to do. The accidental presence of an appendicial inflammation must also be borne in mind at this time, as there is no reason why such an occurrence might not be met with during the puerperal state as well as at any other time. I may say, however, with reference to this perplexing subject of diagnosis, that it is a fair assumption that any rise of temperature after confinement, except it be merely temporary, yielding quickly to simple measures, is due to septic infection. The easy cases for diagnosis are those in which there is a chill on the third day or thereabouts, followed by a rapid rise in temperature, a rapid pulse, running up in the severe cases to 140 or 150, repeated chills, temperature varying from 102° to 105° F., occasional remissions, but scarcely ever falling to 100°, tongue coated, in bad cases brown and dry—in fact, the usual symptoms of septic infection. Occasionally, when the septic infection has been gradual, even a high degree of sepsis may occur with little or no elevation of temperature; the rapid, weak pulse, with the history of the case, and the absence of marked anæmia and other causes for a rapid pulse, will indicate the true nature of the disease. There may be an offensive vaginal discharge, or the lochia may be absolutely odorless. In simple sapræmia—putrefaction of retained portion of placental membrane or clots, the odor is always bad—an odor which one can never forget when he has once experienced it. With this type the fever often runs high, the cheeks are flushed, the head and back aches, and the patient is very ill. But, after all, the process is a superficial one and is soon over, if the uterus be thoroughly emptied of its putrid contents. But not so with true septicæmia of streptococcic origin. The lochia may be absolutely odorless. The latter type of cases, when only the high temperature and pulse indicate the virulence of the infection, give, in my experience, the most unfavorable prognosis.

When we come to the treatment of puerperal infection we get on to very positive ground; there is much to be said on this part of our subject, and I hope to express my ideas in no uncertain terms. I shall not weary you with measures which are distinctly prophylactic. I read a paper on the prevention of puerperal fever before this Institute at the Washington meeting in 1892, in which the subject of "Obstetric Antisepsis" was discussed. Though nearly ten years have passed away I have not changed my views with reference to the subject as then expressed, in any important particular. Some criticisms were made upon the necessity for and the mode of securing such strict aseptic and antiseptic methods as were then advised, but time has borne out the wisdom of these precautions in a lowering of both morbidity and mortality statistics wherever these precautions have been observed.

If I had time I would like to read the rules which have been printed and posted in the delivery room and small obstetrical ward in the Flower Hospital, for the guidance of nurses and doctors, to secure asepsis and antisepsis in their daily work. If these rules, or such modifications of them as would make them applicable to private practice, were in the hands of every practicing physician and were observed, there would be fewer cases of sepsis and fewer cases for the gynecologist. I took pleasure in giving to each student in the Junior and Senior classes of the New York Homeopathic Medical College, during the last session, a copy of these rules, with the urgent injunction that they be pondered in order to mentally digest, and practiced conscientiously for the welfare of their future patients. In spite of these rules we occasionally have cases of septicæmia in our obstetrical ward, but as a rule they are brought to us on the ambulance, already septic, and we do the best we can with them in our limited space.

In private practice it is not always possible to secure perfect asepticism. The surroundings and the exigencies are such that even the best-directed efforts toward this end will sometimes fail. But physicians should provide themselves with every requisite to secure cleanliness by means of the hand-

brush, the nail-cleaner, and the antiseptic agents, and strive for the best that is attainable.

I believe it would be to the credit of this Institute if this Obstetrical Section should adopt such a resolution as was adopted by the Obstetrical Section of the New York Academy of Medicine in 1882, on the motion of Dr. H. J. Garrigues of New York City, who has done more to advance the interests of antiseptic midwifery than any other man in this country. The resolution to suit the present situation would read as follows:

WHEREAS, Experience both in this country and abroad shows that by strict aseptic and antiseptic measures the total mortality in lying-in hospitals may be reduced to a few per thousand, and

WHEREAS, Deaths due to infection following childbirth or abortion, are yet common in private practice;

Resolved, That, in the opinion of the Obstetrical Section of the American Institute of Homeopathy, it is the duty of every physician practicing midwifery to surround such cases in private practice with the same safeguards that are employed in lying-in hospitals.

I respectfully submit this resolution to this Assembly for its consideration and, I trust, adoption.

[The resolution was unanimously adopted and Dr. Danforth made chairman of a committee to formulate rules for the guidance of physicians and nurses in securing asepsis in obstetric practice.—EDITOR.]

Treatment.—There are three recognized forms of puerperal sepsis which demand special measures of treatment for each variety. These are *sapræmia*, *septicæmia* (lymphatic and venous), and *pyæmia*. The first two varieties, *sapræmia* and *septicæmia*, are nowadays by far the most common, particularly *sapræmia*, while *pyæmia* is comparatively rare, for the reason that the septic condition is recognized at a much earlier stage than it formerly was, and treated more energetically in that the cause of the sepsis is promptly and more or less effectually removed, and therefore the opportunity for a systemic infection sufficiently strong to produce metastatic abscesses is not given.

Sapræmia.—If, after an abortion or a delivery at term (antiseptic precautions having been carefully observed), the patient is seized with a severe chill, high temperature, and other evidences of constitutional disturbance, it is a fair assumption that some portion of the secundines or clots have been retained in the cavity of the uterus and are undergoing decomposition. The obvious indication in a case of this kind is to clean out the uterus as quickly as possible. The patient should be anæsthetized, placed on a table in the dorsal position, and the legs held up with a leg-holder. After the external parts, the vagina, and the cervix have been rendered sterile by scrubbing and antiseptics, the physician anoints the hand with lubrichondrin or sterile vaseline, inserts it into the vagina, and introduces one or two fingers into the interior of the uterus. If necessary, the whole hand is introduced into the vagina. The free hand steadies the fundus uteri and preesses it down against the internal hand. The physician should go thoroughly over the whole inner surface of the uterus, paying special attention to the cornua, which is most difficult to reach, but where a piece of the placenta is apt to be lodged. In this way the uterine cavity is cleaned; the sentient hand is better than the curette, but the latter is often necessary, as the hand cannot reach the fundus even after having dilated the cervix with steel dilators. In such cases the curette is absolutely required. After emptying the uterus it should be irrigated with electrozone, diluted one-half, or a mild solution of permanganate of potash, or Marchand's solution of peroxide of hydrogen, diluted one-half, or bichloride of mercury 1-10,000. Afterward the uterus should be packed with ten per cent. iodoform gauze, which promotes contraction and reduction in the size of the organ and inhibits germ action. Doubtless many cases of sapræmia may be relieved by intra-uterine douching, but with the intra-uterine douche we cannot be sure that the removal of the bacteria and all the putrid products is accomplished; the necrosing decidua afford more or less protection; they are destroyed or inhibited if the antiseptic fluids come in contact with them, but this cannot be invariably relied upon. The complete elimination is accomplished by the processes of repair, aided by drainage, anti-

ficial or natural. In all intra-uterine manipulations the greatest care should be exercised to prevent infection of the cavity with septic vibrios. A simple sapræmia may become complicated by septic infection, and a process which ordinarily would quickly subside may become general through lymphatic or venous absorption.

True septicæmiæ is an altogether different process to contend with. The streptococci and the other varieties of micro-organisms which, individually or collectively, are concerned in the production of the disease are deeper in their action than the vibrios of putrefaction. The most common point of entrance is the endometrium, but any lacerated surface in the genital canal may be the point of attack. Lesions about the external genitals and of the cervix uteri become covered with a grayish exudate, the parts are œdematous, bleed easily, and secrete a thin, sanious fluid. In mild cases of septic endometritis one sees nothing notable in the membranous shreds brought away by the curette; the superficial layer may have a slightly yellowish color. In severe cases the endometrium may show little alteration to the naked eye, yet under the microscope it is found permeated with cocci. Frequently, in severe infection, colonies of cocci are present, and the whole mucous membrane of the uterus is changed to a dirty-colored, smeary mass, which may be easily scraped off with the knife from the muscularis. In severe cases putrefactive germs are also sometimes found. Putrid, croupous, and gangrenous endometritis are ætiologically only varieties of septic endometritis. The bacteria do not pass through the (so-called) "granulation" layer which microscopists have found just underneath the more superficial layer of necrotic tissue in the uterine cavity. The course of infection from the endometrium is either by the lymphatics or the blood vessels. The former mode of invasion is apt to produce a septic peritonitis, while the latter terminates in a septic thrombosis of the veins, resulting in pyæmia and septicæmia. The factors which determine these variations seem to be the contractions of the uterus, the resistance of the various tissues to the extension, and the virulence of the organisms. Rarely does extension occur through the tube. The smallest amount of septic ma-

terial may cause the severest forms of sepsis from the smallest wounds, and the converse is equally true. In localized endometritis the germs are of slight virulence, and the reacting power of the system is able to cope with them. The more virulent organisms traverse the walls of the uterus before the reaction can be established; there is a stasis in the infected uterus, and before it is possible for lymph to be effused or pus to form, the patient is dead. The most fatal cases are those in which the veins are filled with infected blood-clots, thrombo-phlebitis.

In septic lymphangitis the pelvic connective tissue becomes involved and we have various degrees of inflammatory products from exudative masses, which terminate in either adhesive bands binding organs together irregularly, or the formation of abscesses. Pus foci may exist in the broad ligament, the ovary, or even in the tube. Septic peritonitis is a common result of lymphatic invasion; the intestines become matted together, and pus forms in the pelvic peritoneal space. Remote organs may become involved through blood infection. A septic endocarditis, pleuritis, or nephritis are not uncommon sequels of a profound degree of general septicæmia.

An infective process so virulent, so penetrating, and so far-reaching in its effects, can only be met successfully by an early appreciation of its nature, by prompt, energetic, and thorough treatment. If the practitioner would only appreciate the fact that the dirty finger-nail, the unclean instrument, indifference to the use of the scrubbing-brush, the nail-cleaner, the antiseptic solutions, was the cause of the infection, there would be fewer cases of sepsis to deal with. And then, too, physicians are so inclined to neglect a slight rise in temperature, say of 102° or thereabouts, and even if associated with a slightly offensive lochia, they ignore it, pass it by as of no account and to be expected. Very many of these cases are due to localized mild endometritis, and if they were recognized and treated properly, there would be fewer cases of retarded convalescence after confinement.

Now as to specific treatment. It is mainly surgical. Lesions of the external genitals must be freed from rough,

jagged, black pieces of flesh by means of the scissors, grayish sloughs touched thoroughly with pure carbolic acid by means of cotton wound on an applicator. Before any examination is made the patient's vagina should be thoroughly cleansed with electrozone and water (equal parts) or bichloride 1-10,000. If the case is seen within twelve hours from its inception and is of a mild grade apparently, the intra-uterine douche may be resorted to. The details of preparation should be as thorough as for a vaginal hysterectomy. The patient should be anæsthetized, on a table, on her back, legs sustained, vulva shaved, external parts cleansed, and the cervix made sterile to internal os. The anterior cervical lip is seized with a volsellum, uterus steadied or drawn down, and the glass return-flow irrigating tube passed to the fundus. In the fountain syringe I use lysol one per cent. or electrozone, diluted one-half with sterile water. Permanganate of potash is also efficacious—in a weak solution. After the douche the rectal temperature is watched closely. Frequently one washing will materially modify the symptoms. If not, the douche is repeated in from two to four hours. After the last douche the uterus is packed to the fundus with ten per cent. iodoform gauze; one and the chief object of this is to supply iodine in the form of iodoform, which will be more rapidly absorbed into the decidua than will the micro-organisms themselves. There is considerable difference of opinion among obstetric surgeons as to the efficacy of the intra-uterine douche and the curette in septic endometritis. I am of the opinion that the reason some men do not have good results and who find that the septic process goes on with just as much or more virulence after the use of the douche and curette, is because they do not act quickly enough. They wait too long—until the germs and their products get beyond the reach of these methods of treatment. I have followed in hospital cases, and in a few in private practice, the rule laid down by William R. Pryor, M. D., of New York City, as follows:

“If in twenty-four hours after douching the uterus the temperature is not normal, the operator proceeds to curette the uterus and pack with iodoform gauze, which, if the symptoms are favorable, he allows to remain in forty-eight hours.”

In simple putrid infection, if the symptoms are not improved in forty-eight hours, the cul-de-sac operation is performed. Whenever the curette is used in the uterus for true sepsis, the cul-de-sac operation is done immediately (that is, at the end of twenty-four hours after preliminary douching).

Dr. Pryor says: "In cases of putrid infection and where retained placenta is sought, curetting alone will suffice. But in the presence of sepsis which has not yielded to the non-operative procedures, I have never been able to determine how deeply in the tissues the infection has extended. And as the cul-de-sac operation is devoid of danger, and my anxiety is great lest the infection run away from my reach, I always open the cul-de-sac whenever I curette for sepsis, i. e., when milder procedures have failed.

"The patient is under chloroform. The vagina is prepared antiseptically; and if there could be degrees in cleanliness I would urge the highest here.

"After curetting the uterus it is packed with gauze. Selecting the fold just behind the cervix, it is picked up with forceps and cut through for a space of a half inch. The cut extends through the mucous membrane only. The finger is then shoved into the pelvis. About two minutes are consumed in this. Upon withdrawing the finger a quantity of serum escapes. The operator carefully notices the character of the fluid which escapes. He passes his finger back and forward behind the broad ligament and gently palpates the adnexa. If the organs are found matted together by lymph, they are liberated with the finger. I seek to make this digital exploration and separation of adhesions of the broadest kind, my object being to open the lymph spaces, not only that they may discharge into the dressing, which I am about to apply, but that the antiseptic may be readily absorbed. Wherever there is an effusion of lymph there is a contest between germs and the tissues. Into this combat I wish to enter.

"Having examined the pelvis and separated all adherent organs, I insert two fingers into the cul-de-sac and stretch the opening to a level with the sides of the cervix. The pelvis is then filled with strips of iodoform gauze. These pieces are made by taking a strip of gauze a yard long and four inches

wide. The strips extend up to the level of the fallopian tubes. The vagina is packed. If the patient's pulse runs under the ether to 140, I deem it the indication of a profound degree of septicæmia. It is then my duty to increase the action of the kidneys as well as stimulate the heart. I therefore introduce into a vein from one to two quarts of salt solution. This I also do whenever I find that the lymph in the pelvis is breaking down into pus, and whenever there are grave complications, as pneumonia and nephritis. It is a question in my mind whether it be not advisable to employ this in all cases of streptococcus infection, and at present such is my practice, but I am not prepared to advise its general use.

"Within a day after this operation the bed will be found soaked with the muddy, toxin-laden serum from the pelvis. The amount must be pints in quantity in some cases, and the patient will feel the loss of so much fluid unless provision be made to supply it. I therefore inject into the bowel eight ounces of tepid salt solution every three hours for several days. The patient is stimulated by hypodermics of strychnia, but I do not believe in excessive doses. I usually give 1.50 gr., q. 4 h. A few hours after the operation I begin giving fluids by the mouth. If stimulants are needed I give either an ounce of champagne every hour or a teaspoonful of brandy in an ounce of water. If alcoholics are not necessary I give hourly an ounce of cold water, to which has been added five drops of lemon juice. The urine is drawn every three hours and is measured. It is tested for albumin and iodine. I begin to administer liquid food after eighteen hours, beginning with a little hot chicken broth or squeezed juice of broiled steak. In three days I remove the vaginal packing and the uterine gauze. The vaginal packing is renewed, but the uterine is not unless the septic symptoms persist. The cul-de-sac dressing is taken out in a week and is replaced by fresh gauze of five per cent. strength.

"These dressings are repeated every four to seven days until the opening is closed."

Since the publication of Dr. Pryor's method of treatment, I have employed it in six cases of sepsis, and I have been astonished at the amount of bad-smelling, brownish fluid which

would drain from the pelvic tissues, and how rapidly the symptoms would subside. I do not believe patients need go on to these dreadful complications, such as septic peritonitis and abscess formation with their sequelæ, if this operation is adopted in time. While I believe the treatment of puerperal sepsis is largely surgical, the use of homeopathic remedies plays a large and useful part in the amelioration of symptoms. The system is sustained by homeopathic remedies in its fight against the invading micro-organisms, fever is reduced, congestion lessened, inflammatory products minimized and phagocytosis—the conflict between the bacteria and the protecting leucocytes—is greatly strengthened. I have found belladonna, baptisia, arsenic, lachesis, mercury, and hepar of the greatest value. I have never had occasion to use the anti-streptococcic serum, and I know only what I have read in the journals as to its action. In some bad cases of sepsis I have used Déclat's nascent phenic acid (80 mms. injected hypodermatically) three times a day, or sulpho-carbolate of soda (5 grains) every two or three hours. These I have used as blood disinfectants, and I think with good effect.

I will leave the subject of the treatment of pelvic abscesses for another occasion. I have already exceeded the time allotted me.



PLACENTA PRÆVIA.*

BY F. W. HAMLIN, M. D.

The term *placenta prævia* is used to designate the implantation of the placenta upon that portion of the uterine wall which must be dilated to give exit to the child. A certain portion of the lower uterine segment must dilate during the process of delivery, and it has been determined that the upper limit of this so-called "dangerous zone," as regards placental attachment, is about a finger's length, or three inches, above the internal os. If any portion of the placenta extends lower than the upper limit of this area, it may be termed a *placenta prævia*. Several varieties of *placenta prævia* are described in the text-books, but for practical purposes there are only two varieties, namely, the lateral and the complete. Complete *placenta prævia* means that the internal os is completely covered by placenta. The term central implantation of the placenta is not so accurate, as the center of the placenta rarely corresponds exactly with the center of the internal os. Lateral *placenta prævia* includes those cases in which the great mass of the placenta is at the side of the uterus, while a small portion is attached more or less near the internal os. The lateral variety is much more frequent than the complete. In complete *placenta prævia* the smaller portion is more often found to the left, and in the lateral variety the right side of the uterus is the more common site of the placenta.

Frequency.—*Placenta prævia* is comparatively rare. The usual proportion is one in one thousand, or one in fifteen hundred deliveries. The writer saw two cases last year occurring within two weeks of one another. One of these cases was of the complete variety, the other lateral. While, therefore, *placenta prævia* is a rare complication of pregnancy, the practitioner may meet a case at any moment, and its proper treatment should be understood by every physician in general practice.

Ætiology.—The exact causes of *placenta prævia* are not known. Numerous theories have been advanced to explain

* Read at the American Institute of Homeopathy, Richfield Springs.

this anomaly, but many have proved false in the light of advanced knowledge, while those held at the present time may in turn be superseded in years to come. A diseased condition of the endometrium is undoubtedly an important predisposing cause. Thus, previous abortions, subinvolution and endometritis, with hyper-secretion, are all well recognized as predisposing causes of placenta prævia. It is much more frequent in multiparæ than in primiparæ. More cases occur among the poorer classes, partly because of hard work during the early months of pregnancy, but more especially on account of subinvolution, which is so common in this class. In a recent article by Dr. Neil McPhatter, on the "Pathology of Intra-uterine Death," a very plausible explanation of the occurrence of placenta prævia is advanced. Dr. McPhatter claims that in normal menstruation the epithelial covering of the mucous membrane is exfoliated, and the underlying surface becomes engorged and swollen and ready for an ovum to become imbedded in its soft, velvety wall. Menstruation, however, may be imperfectly accomplished, and a portion of the epithelial covering may remain adherent. When this occurs at the fundus, it would be impossible for a fertilized ovum to become attached in that location, as Dr. McPhatter claims that it is absolutely impossible for a vitalized ovum to attach itself to an epithelial surface. Hence the ovum would be forced down the side of the uterine wall, and when it reached a suitable surface there would become imbedded. This explanation of the origin of placenta prævia seems to me as plausible as any, and, if the facts are as stated, may be correct.

Symptoms and Diagnosis.—The only characteristic symptom of placenta prævia is hemorrhage occurring in the later months of pregnancy, without obvious cause. This hemorrhage usually comes suddenly, is unaccompanied by pain, and does not occur as the result of unusual exertion, such as lifting, straining, or coughing. The source of the hemorrhage is undoubtedly uterine, and it results from the partial separation of the placenta from the uterine wall. The cause of these hemorrhages has been supposed to be the gradual dilatation of the lower uterine segment during the later months of preg-

* New York Medical Journal, vol. lxxiii, page 585.

nancy. This is only theory, however, and cannot be accepted as proven. Good authorities claim that the cervix remains unchanged during gestation, and this view is commonly held by obstetricians of the present day. Spiegelberg affirms that the hemorrhages which occur during the later months of pregnancy depend upon commencing labor, and that it is not the hemorrhages which induce premature labor, as is generally supposed, but that the converse relation is the true one. These hemorrhages occur most frequently at the menstrual epochs. Thus it is not uncommon to observe a recurrence at intervals of about a month. The seventh and eighth months are especially critical periods. Dr. McPhatter, in the article already mentioned, gives the following explanation of the occurrence of these hemorrhages.

“From the time a fertilized ovum begins to develop in the uterus until the full period of gestation, the uterine walls have a rhythmic action of alternate contraction and relaxation. At first these contractions are very weak, but, as the uterus develops, they become correspondingly firm. In the later months of pregnancy they are quite powerful, and can readily be recognized by placing the palms of the hands over the uterus for a few minutes. These contractions have more influence upon the lower part of the uterus than they have upon the fundus. The lower the placenta is implanted, therefore, the greater becomes the danger of accidental laceration of a utero-placental sinus. These contractions begin at the fundus and increase in volume and strength as they approach the cervix. When, therefore, a placenta happens to be located in the lower part of the uterus, it receives the full force of these incessant contractions, and is very liable to be severed from its attachments. Add to this jerks, falls, and blows, and the fact that the placenta is situated beneath the child, where its weight comes down with full impact against the placenta, and the causes for these hemorrhages become reasonable.”

In the complete variety, the first hemorrhage occurs, as a rule, earlier than in the lateral. In rare cases of either variety there is no bleeding until a few days before labor, and in still rarer cases not until labor begins. Apart from the hemorrhage, the diagnosis depends upon digital examina-

tion. Upon such examination the vaginal fornix is found soft and boggy, and occasionally thicker on one side than on the other. The cervix is long, wide, and soft, and the pulsation of vessels in the lower part of the uterus and vagina is distinct. The presenting part is difficult to recognize. A positive diagnosis requires the passage of the examining finger through the os internum and the recognition by the touch of the shaggy, spongelike structure of the placenta.

Prognosis.—The prognosis in placenta prævia is always grave. Müller gives the maternal mortality as 23 per cent., and the fetal as 64 per cent. Winckel believes that the maternal mortality should not exceed 5 to 10 per cent., but such favorable results are hardly to be expected outside of hospital practice. The infant mortality is rarely less than 50 per cent., and may be as high as 75 per cent. Some writers take the ground that, as the child's chances of surviving are so small, its life should not be considered in determining the treatment, but with this view I cannot agree. In cases of early hemorrhage, which would indicate a central implantation of the placenta, the sacrifice of the child may well be considered, but in the later months the child's life should be taken into the account.

Complications during Labor.—Labor is generally tedious and marked by inertia uteri. Transverse presentations are common. The labor being, as a rule, premature, the lower uterine segment is immature, and hence does not expand properly. Prolapse of the cord is frequent, partly on account of abnormal presentations, and partly from the frequency with which the cord arises from the prævial margin of the placenta.

Complications After Labor.—Abnormal adhesions between the placenta and the uterine wall are frequent, so that the placenta must often be removed manually. Post-partum hemorrhage is common, especially where rapid delivery has been done. In some cases of so-called "accouchement forcé," the hemorrhage results from extensive injuries to the cervix and lower uterine segment, caused by the rapid dilatation. Owing to the manipulations necessary in delivery and the increased vascularity of the lower portion of the uterus, septic infection is common, and all varieties of puerperal

septicæmia may occur. Death has occurred suddenly from the entrance of air into an open sinus at the moment of separation of the placenta.

Treatment.—The treatment of placenta prævia requires the exercise of the highest professional skill and the ripest judgment. No one rule of treatment can be applied with success to every case. From the moment that the first hemorrhage occurs the mother's life is in danger. On the other hand, the induction of premature labor exposes her to other dangers which may destroy life. As Lusk aptly says: "In the management of placenta prævia the practitioner should have a perfectly clear idea of the nature of the task he has to perform. The birth of the child cannot take place without preliminary expansion of the cervix. The cervix cannot expand without detachment of the placenta. The principal objective point of treatment, therefore, is the hemorrhage which occurs during the stage of dilatation. The best plans for restricting the flow are those which at the same time shorten the labor."

In hemorrhages occurring as early as the twenty-eighth week, it is the opinion of the best authorities that labor should be induced. If the hemorrhage is but slight, however, and the patient can be kept under close observation, I believe that an expectant course may be pursued without any more danger than would be encountered in the induction of premature labor. The mother might survive the operation, but would, perhaps, succumb to septicæmia or shock. The child, of course, would be sacrificed. If, however, the hemorrhage has been at all severe, and upon examination the os is found soft and dilatable, we should no longer delay, but should proceed to terminate the pregnancy at once. If the cervix is long, narrow, and rigid, the vaginal tampon may be used. The tampon, if correctly applied, not only checks the hemorrhage, but also increases the pains. It thus meets the indications for successful treatment up to the time when the os becomes sufficiently open for the passage of two fingers within the os. The tampon should not be left in the vagina longer than from six to twelve hours. When the os is sufficiently dilated to admit two fingers, the Braxton Hicks method of podalic version is the usual procedure adopted. This may be described

as follows: As soon as the os uteri is sufficiently dilated to admit one or two fingers, pass the whole hand into the vagina, insert one or two fingers through the os, rupture the membranes, and bring down one foot. Pull down successively the leg, the thigh, and breech, which fill the os and cervix uteri and act as a tampon to stop bleeding. Do not at once extract the child, but let it come unaided, or assist occasionally during pains by gentle traction, so as to deliver in about an hour. If the placenta be in the way, perforate the membranes at its margin, or at any point where it may be separated. Failing in this, plunge the finger through the placenta and bring down the leg through the opening thus made. The slow delivery is a matter of great importance, as it affords time for the patient to rally, for the cervix to dilate, and for pains to set in. It therefore reduces the danger of post-partum hemorrhage. This method of Braxton Hicks has reduced the maternal mortality to 4 per cent. in hospital practice and in the hands of experts. The infantile mortality is, of course, very high; varying from 50 to 80 per cent. If the placenta prævia is lateral, and labor is in progress with a head presentation, it is good practice to rupture the membranes. This procedure allows the head to descend and fill in the lower uterine segment, thus preventing further hemorrhage. The case may then be left to nature. Should delay demand interference, the forceps can be applied and delivery expedited. The method of Dr. Robert Barnes consists in stripping off the placenta from the uterine wall to the extent of a finger's length upwards from the internal os. Retraction of the muscular tissue ensues and hemorrhage stops. This method of Barnes may be summarized as follows:

1. Rupture the membranes; this disposes the uterus to contract.
 2. Apply a firm bandage over the abdomen.
 3. A tampon may be introduced to gain time, but it is not necessary.
 4. Detach all the placenta adhering within the inferior zone.
- If there is no hemorrhage, wait a little. Natural labor may ensue. If nature fails, dilate the cervix with the hydrostatic dilators. After full dilatation, if delay occurs, employ forceps, or, as a last resort, perform version.

This method of Barnes is modified by Cohen and Davis as follows: Two fingers are passed in between the placenta and uterine wall on that side where the separation has begun or where the attachment is less extensive; complete the separation on this side, and then let the finger hook down the border of this loosened flap of placenta and pack it closely against the other side of the cervix. Then rupture the membranes and hasten delivery. Should the head present and pains be strong, leave the case to nature, or apply forceps, if haste be necessary. If pains are not good, turn either by the bipolar method, or by passing the hand into the uterus and seizing a leg. The descent of the head affords a much better chance of saving the child and should be encouraged unless the condition of the patient demands speedy delivery. In order to give time to secure good pains and the descent of the head, the loose placental flap may be held against the opposite side of the cervix for a half hour or more. The presence of the head will often excite pains, or a full dose of ergotole or quinine may be given to increase pains. Meanwhile the open vessels have had time to retract and thrombi to form.

Although these methods are undoubtedly highly useful in the treatment of placenta prævia, it will be found that the best results are obtained by proceeding to deliver, when the external os is the size of a silver half-dollar, by the performance of podalic version; expediting the delivery as rapidly as possible with due regard to the integrity of the cervix and perineum. The present trend of opinion among expert obstetricians is that cases of placenta prævia should be operated upon as soon as practicable after the first hemorrhage. This method of treatment is especially advocated by Des Marx and Grandin of New York City. The advantages of this so-called elective accouchement are evident. A time is selected as for any other operation. The patient is surgically prepared, instruments made ready, and competent assistants at hand. The results must necessarily be better than under ordinary conditions, where everything must be done in a hurry and without careful preparation. This is undoubtedly the ideal treatment for placenta prævia, so far as the mother's life is concerned, and has yielded the best results ever attained.

PELVIC EXAMINATION AND DIAGNOSIS BY THE
GENERAL PRACTITIONER.*

BY GEORGE W. ROBERTS, M. D.

There is without doubt a great deal yet to be learned regarding the ætiology, pathology, and treatment of diseases of the female pelvic organs. The surgery of this region is already most elaborate, and new methods are reported with every issue of the journals dealing with the subject. Notwithstanding the present variety and probable future elaboration of operative measures, we seem to have reached a stage in the perfection of technique, which, while it may permit and even encourage endless variety of method, does not promise such radical progress as the recent past has given us. Surgical technique has reached a remarkable state of perfection in the hands of our best operators, the likelihood of technical error has been reduced to a minimum, and it is but fair to the modern gynecologist to say that the expression, "Seen and operated too late," is the true explanation of four-fifths of his fatalities. Not only is this the case, but the same expression, "Seen and operated too late," is the explanation of the necessity of a large proportion of his more seriously mutilating operations.

Everyone in this audience knows that this is not the fault of the gynecologist. On the other hand, he is suspected and even openly accused of keeping his knife rather too sharp and decidedly too active. When we consider that both personal gain and professional ambition urge our craft in this direction, it would be miraculous if some of the weaker ones did not succumb to the strong temptation. Still, we opine that this accusation is not a general one, but is directed toward individuals, and probably for cause. If it is general, and we are all to a degree guilty, then it is quite probable that the whole medical profession is as deep in the mud as we are in the mire, for we cannot admit our morale to be below that of the profession in general from which we spring.

No, there is every reason why the gynecologist should be alert, and a score of most powerful incentives make him so.

* Gynecological Bureau of the Am. Institute of Homeopathy, June, 1901.

At whose door, then, shall we lay the responsibility for the always serious and often fatal delay in the diagnosis and proper treatment of gynecological cases? Admitting that quite a share can be traced back to the gynecologist, through the indirect route of inefficient instruction of his student, who becomes the family doctor, through lack of that professional honor in handling the doctor's patients, which results in a hesitation on the physician's part to trust the gynecologist except when absolutely necessary, still, the main defense rests with the general practitioner, who is first on the ground, and who directs the patient's action, or inaction, in consulting the specialist.

Prescription of such a line of treatment, in any except the self-limited pathological conditions, as will bring greatest safety and quickest recovery to the patient, must of necessity presuppose a perfect knowledge of the existing condition in this patient, and also a knowledge of the possible future history of this condition under various methods of treatment, as well as a broad knowledge of available remedial measures. If we cannot admit this proposition, we are not upon common ground, and discussion is futile.

The general practitioner of medicine is in a very trying position. In each of a dozen specialties has he use for that wide information, the acquisition of which in one line alone is a life work. Such attainment is absolutely impossible, and therefore he must draw for himself a line of limitation, or else his clientele and professional confrères will, by observation of his frequent shortcomings, crowd him into a position both unenviable and below his merit.

For the good of all concerned—patient, doctor, and specialist—we present this topic for discussion: "What must the general practitioner know about pelvic diagnosis? Beyond what point does his responsibility cease?"

It is obvious at once that the personal equation will determine a great deal, that location—proximity to medical centers—will very greatly affect the necessities of the patient, and therefore the responsibilities of the physician. It will therefore be impossible for us to discuss anything more than the most general propositions, and our conclusions must be interpreted by each one somewhat differently.

As was suggested in our opening paragraph, gynecology has just passed through a period of remarkable, yes, we may safely say, unprecedented rapid progress, and seems now to have reached a stage where its development must be more labored and surely less brilliant. It would seem to us that the opportunity for forwarding the science of gynecology in the immediate future lies very largely in the hands of the general practitioner. It is not intended by this statement to convey the idea that he is necessarily to take up gynecological surgery, except in the most minor degree. On the other hand, we believe that when he delves into this field he becomes, in just so far, a gynecologist, and must assume the full responsibility of the gynecologist.

The thought which is uppermost in our mind is that early, accurate diagnosis is the foundation upon which future progress in this science and art rest, and the query is, how may we favor more early diagnosis?

Before stating more specifically our view of the general practitioner's position, permit us to disclaim any desire to limit his field or encourage a cessation of those efforts which tend to make his examination and diagnosis as far-reaching and accurate as that of the eminent gentlemen whose names grace the title pages of our text-books and the Faculty lists of our colleges.

It is rather our desire to define the low limit of attainment, and to encourage men to recognize their limit, be it high or low.

We formulate for discussion, then, the following propositions as to the physician's positive duties in all cases whose symptoms either clearly do or possibly might originate from a pelvic lesion, and while to some our conclusions may seem puerile, it is our personal experience that many and often all of these essentials are neglected by nine out of ten doctors.

First.—The execution of a careful, complete pelvic examination need not, and should not, be neglected or postponed on account of feelings of delicacy upon the part of either physician or patient, except where the examination has proceeded to the point of finding an intact hymen, in the case of a virgin whose symptoms are not in any sense urgent. The assumption of virginity is always dangerous, and even if justified, the con-

dition will not be weakened by careful physical investigation by the honest family doctor. The excuse that "The patient would not permit an examination" is, in most cases, a reflection upon the physician himself. Either his advice does not command the respect which it ought, or else he has not properly urged the necessity of such investigation. In our belief nearly all women, when properly dealt with, will do what is best for their health.

Second.—Examination with the patient in an inconvenient posture, with the limbs extended, or nearly so, with even a single band about the waist, is futile. However extended the physician's knowledge and cultivated his touch, serious pelvic lesions may easily escape his observation unless all conditions are favorable, and yet, men so continually satisfy themselves with cursory examinations that women who have been for months under observation, when they reach the gynecologist, are surprised that he insists upon so obvious a necessity as removal of their corsets before examination.

Third.—Hand and instrument sterilization are as essential before examination as before a minor operation, and yet we are constantly meeting cases where omission of these precautions is obviously the cause of serious infection.

Fourth.—Digital examination, in order to be of value, must be bimanual, and with two fingers in the vagina. The single hand and single finger give valuable information only in rare cases. Compared with the fingers, the speculum is of little use.

Fifth.—Repeated examination of the practically normal pelvis forms the only basis for intelligent interrogation of the pathological pelvis; yet few are able to accurately map out the more gross properties of the normal pelvis, and this leads us to the most important point of our discussion.

We hold that the physician must at least be skilled up to the point of recognizing deviation from the normal. Although he may be unable to define the abnormality, its presence ought only very rarely to escape his touch. He must be skilled up to the point of being able, under ordinary conditions, to palpate through the rectum and vagina the entire uterine body, estimate its size, mobility, and position. He must be able to recognize its deviation from normal size, location, and position. He must recognize the presence or absence of any other gross

mass or body within the pelvis—that is, upon either side, behind, in front of, or above the uterus.

If the physician appreciates these points, and it must be confessed that this standard is a low one, if he makes this intelligent examination, with the precautions detailed, if he thoughtfully considers his findings, there is little likelihood that an important pelvic lesion will escape, without leaving upon his mind the impression that something is wrong.

Just here comes the point where a truthful appreciation of one's own limitation is immediately valuable to the patient and ultimately valuable to the physician himself. It is said that the most valuable piece of a physician's armamentarium is a good surgeon. If this is true, then the next most valuable piece of a physician's armamentarium is a good gynecologist.

Confidence in one's self, in things which one can do, is just, admirable, and highly commendable. Lack of self-confidence in things beyond one's skill and ability is neither deplorable, nor is it an evidence of ignorance. If not an evidence of knowledge, it is an evidence of that greater power—wisdom.

Pelvic lesions in general are so grave that accurate diagnosis becomes of paramount importance. Diagnosis is often so difficult that even the expert, after the most careful investigation, is obliged to advise an incision which is only exploratory. At the same time these lesions are, as a rule, amenable to early, intelligent treatment, while the lapse of months, weeks, and even days, often places them among the life-jeopardizing conditions. Therefore, when the physician finds that in a given case he has an abnormality in the pelvis, the nature of which he cannot determine, although it may give no evidence of great gravity, he is bound by duty to his patient to direct her into more skilled hands, just as surely as he is bound to treat, as skillfully as possible, a by him well-understood lesion. By assuming this position, the physician not only avoids a responsibility which he never assumes in good faith, but he applies to his patient's condition the indicated remedy, as truly as though he was skilled to the point of highest attainment in this all-important and all-absorbing field of medical science.

While we hope and feel that the ideal will ever be a little farther ahead,—just beyond the next hillock,—we see clearly that this field of pelvic diagnosis by the family doctor, coupled with a recognition of his perfectly proper limitations, is in modern gynecology—the next hillock.

GASTRECTOMY, OR ESOPHAGO-ENTEROSTOMY.*

BY WILFRED G. FRALICK, M. D.

Visiting Surgeon Metropolitan Hospital; Consulting Surgeon Memorial Hospital, etc., etc.

About a year ago I presented a paper and submitted several specimens to the members of this society for inspection, amongst which were two appendices removed from femoral hernial sacs. These were shown to direct your attention to the migratory habits of this troublesome rudimentary organ; also because statistics mention no similar cases. To-day I will invite your attention for a few minutes to the subject of gastrectomy—the definition of which reads, “Removal of the stomach, complete or in part.” To be more exact I will use the expression, Esophago-enterostomy. The few cases which have hitherto been recorded in literature as instances of total resection of the stomach prove, on closer examination, to be not exactly as described, for with but one exception a small portion of the stomach—chiefly of the cardiac end—was left behind.

Even in the case of the celebrated dog, says Schlatter, on which gastrectomy was performed by Czerny and Kaiser in 1876, and which, so to say, lived five years without a stomach, was found on post-mortem examination that a small portion of the cardiac end of the stomach still remained. Kochler of Philadelphia, who gathered statistics from various parts of the world, says many cases of the so-called removal of the stomach are removal only in part, that in nearly all cases certain pyloric and cardiac glands remained.

It is my purpose to eliminate all minor operations on the stomach, and discuss the subject only from a point of its complete removal.

Cases of gastrectomy have been reported by the following doctors: Dr. Charles Morton, England; Dr. Beekman; Dr. Bingham; Dr. Richardson, case died the first year; Dr. Childs McDonald; Dr. Ribera y Sans, France; Dr. John B.

* Read before the New Jersey State Medical Society, May 7, 1901.

Harvie, Troy; Dr. Schlatter, Germany; Dr. Fowler, third died; Dr. Delatour, Brooklyn; Dr. Brooks, and also the case which I have the honor to report to-day. Of the above in Schlatter's, in my own, and possibly in that of Dr. Fowler's, was the operation of esophago-enterostomy performed. All the patients operated on were emaciated and their general condition was poor. In each case cancer was the pathological lesion calling for the operation.

I first saw my patient in consultation with Dr. Frank S. Carpenter of Newark, on March 26. He gave the following family history:

Sister died of cancer fifteen years ago.

Personal History.—Mr. B. was fifty-eight years old; suffered for a number of years from stomach trouble. Consulted Dr. Carpenter in September, 1900; suffering then from distress in the epigastric region. For a time he found relief from Dr. Carpenter's prescriptions. About four months prior to operation he was troubled with a great deal of gas in the stomach, occasional attacks of vomiting, pain, and had lost about twenty pounds in weight during this time. He had a heart-trouble as long as he could remember. His lungs and kidneys were normal; he was greatly emaciated, and his complexion was that peculiar to cancer.

Physical examination revealed by palpation a hard lump in the epigastric region, about as large as a goose egg, slightly movable, and dull on percussion. This, together with the personal history, enabled me to make a diagnosis confirming Dr. Carpenter's, of cancer of the stomach. An operation was advised, and on March 30 was performed. The preliminary work was under the direction of Dr. Carpenter. The rooms had been disinfected and antiseptically prepared, and everything was in readiness on my arrival at 3 p. m. Anæsthesia was started, ether being used. A vertical incision two inches in length, starting from the ensiform cartilage to a point near the umbilicus, was made, a little to the left of the median line, through the skin to the peritoneum. The peritoneum was then divided, exposing a portion of the tumor—also adhesions. The latter were carefully separated, which enabled me to better outline the growth, which seemed to involve the entire

stomach. Traction was made in every direction, for the purpose of determining in what direction the abdominal opening should be enlarged, to best expose the tumor and facilitate further work. The incision was enlarged vertically as begun, in extent about four inches. I now saw what I feared, that the entire organ was involved. Just here let me say, that for several minutes in quick succession more plans were conceived and abandoned, whereby I might find some other way than by the total extirpation of the stomach, which might give some relief to the patient. But no; it was all or nothing. These few minutes were by far the most trying period of the operation. Having freed the stomach from all adhesions, and having shut off the peritoneal cavity with electrozone gauze, I isolated the stomach on its small and great curvatures, first securing the blood vessels, separating the lesser omentum, and dividing the gastro-phrenic ligament.

I next secured the blood vessels along the greater curvature and separated the great omentum, particular attention being paid to the blood supply of the great curvature—case reported by Kocher having died, due to including in the ligature the blood supply of the omentum and mesocolon instead of that of the omentum alone.

The stomach was now freely movable and could be entirely drawn out through the abdominal incision, which was done, firmly making lateral traction toward the patient's left. This brought into view the duodenum, around which was passed and secured a tape ligature. I then pulled the stomach downwards. This brought the esophagus into view and made it easy of access. The left lobe of the liver, which partly covered the stomach, was held out of the way by an assistant. The esophageal opening was closed by tape ligatures, applied similarly to that on the pyloric side. Clamps would have been used, but I had no suitable ones with me. I separated the stomach at the pyloric side first, then removed the stomach from the esophagus at its junction.

Cleansing the apertures with pure electrozone, the cut ends were brought together, using a plain No. 1 catgut Czerny-Lembert suture to secure the areolar or submucous layer, a running suture of plain No. 1 catgut for the muscular layer, and a

similar suture in the serous covering. All packing was removed and the sutured parts returned to the peritoneal cavity. An electrozone gauze packing was then introduced through the abdominal incision and made to fall lightly upon the joined parts. More electrozone gauze, combined dressing, and a tailed bandage were applied and the operation was completed. The time occupied was a little less than an hour and fifteen minutes. The patient was returned to his room in fairly good condition.

Macroscopically the stomach was contracted, being about eight inches long and three wide. The walls were greatly thickened and hard towards the center, cutting like cartilage, becoming less resisting and thin towards the ends. The mucous membrane was smooth, dark in color, and gave evidence of submucous infiltration. The stomach contained a substance such as is frequently removed from the endometrium of a diseased uterus. The lumen of the stomach at that point between the greater and lesser curvatures, usually several inches in diameter, would permit of the introduction of only one finger. The microscopic examination, made by Dr. Schall of Brooklyn, showed it to be one of cancer.

Post-operative Remarks.—Flatus was expelled twenty-four hours after the operation. The bowels moved freely on the third day. On the seventh day all primary dressings were removed. The wound was in a perfectly healthy condition. The patient's temperature at no time went above 101°, and the pulse remained below 100. Nourishment consisted of nutrient enemata of peptonized milk, Somatose, Bovinine until the tenth day, when champagne was taken by mouth. The patient felt no inconvenience for the loss of the stomach. There was no nausea, and no vomiting. On the eighth day he was able to be raised in his bed. He felt strong and was cheerful and inquired how much longer he would have to remain in bed. Improvement continued until just before he died, on the beginning of the fourteenth day.

I feel as certain as anyone can that, had he not had a heart lesion, he would have been alive to-day. In temperament the patient was an ideal one. He was hopeful and cheerful at all times. Much credit is due Dr. Carpenter for the efficient man-

ner in which he conducted the post-operative treatment of the case.

I was assisted by Drs. Frank S. Carpenter of Newark, by George C. Connett of Morristown, N. J., and by Dr. Ralph Fralick.

In my judgment the removal of the stomach is a justifiable procedure under favorable conditions. We are usually called upon to operate long after the time of election for so formidable an operation has passed. Early recognition and early operation are essential to a successful result. Why is it that patients are permitted to continue under observation and cancer allowed to develop in the stomach, when the faintest deposit of malignant disease elsewhere calls for immediate surgical interference? The stomach is a very tolerant organ, and can be explored with comparatively little danger. The possibility of doing without the function of digestion, as it is conducted in the stomach, is evident from many clinical observations. In all cases where this radical operation is indicated, the stomach has usually ceased even to be useful as a receptacle for food, hence its removal does not assume the importance it would under more healthy or normal conditions.

The stomach is essentially an organ for the protection of the intestine, mitigating or removing such properties of food as might have an injurious influence on the intestine. Consequently, if the food provided is of suitable quality, quantity, and of the proper temperature, the intestine is quite competent to perform the chemical work of the stomach.

Observations made by such eminent authorities as Van Noorden, Moritz, Ewald, Falk, Frank, Einhorn, Von Mering, Kühne, Worblewski, Schlatter, and others answer the scientifically and practically important question, whether the total removal of the stomach in a human subject is compatible with a continuance of life, in the affirmative.

A TRIMANUAL METHOD OF PERCUSSION FOR THE DETECTION OF CYSTIC OR LOCULATED FLUIDS IN THE ABDOMEN.

BY JOHN G. CLARK, M. D.

In the diagnosis of abdominal tumors Dr. Osler says that Bishop Butler's maxim, "Probability is the rule of life," is particularly true, "and the cocksureness of the clinical physician who formerly had to dread only the mortifying disclosures of the postmortem room is now wisely tempered when the surgeon can so promptly and safely decide upon the nature of an obscure case."

While Bishop Butler's maxim may still be true in some instances, we find that with the refinement in diagnosis, which has kept pace with other recent advances in abdominal surgery, fewer and fewer mistakes are being made.

The very fact, however, that an exploration section is so easy and so free from danger under well-regulated conditions may, in some instances, have led to greater carelessness than to accuracy in diagnosis. As a proof of retrogression, or at least a failure to progress, the expression is not infrequently heard that "one can never be sure of the nature of an abdominal tumor until the abdominal incision is made."

In the diagnosis of abdominal enlargements, Richard Bright has said that we arrive at conclusions through "the form and appearance presented to the eye; the form still further discovered by touch; the resistance ascertained by pressure; the sounds elicited by percussion; and, in a few instances, the sounds perceptible to the ear, either alone or by aid of the stethoscope."

In the abdominal tumors of women, the combination of touch and palpation in the bimanual pelvic examination is by far the most efficient means of diagnosis at our command.

The tactile sense, naturally, becomes more and more acute with increasing experience, so that structures, which to the novice are unrecognizable, may easily be outlined when a sufficient tactus eruditus is acquired. In my own experience the chief difficulty in the differential diagnosis in obscure cases has

been in judging the consistence of a tumor or encapsulated mass as to whether it was fluid or solid. This differentiation is of vital importance in many cases. Thus, for instance, an adherent soft intraligamentary myoma, associated with inflam-

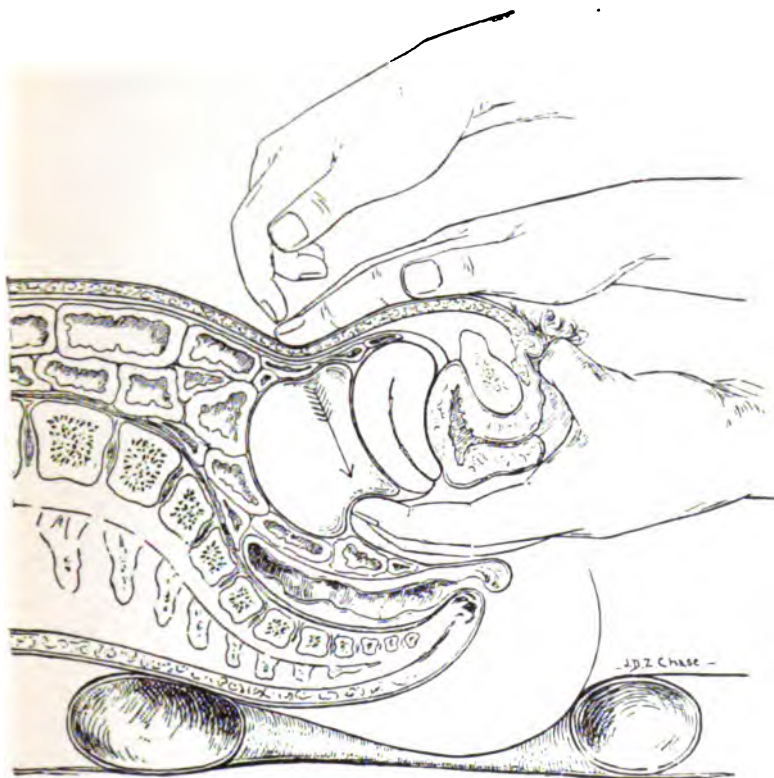


FIG. 1.—Trimanual percussion of fluid accumulation in the pelvis. The vaginal index finger makes deep indentation in the vaginal vault posterior to the cervix, counter-pressure being made by the abdominal hand pressing down against the tumor mass, thus collapsing or displacing the intestine, while the assistant lightly percusses the tip of these fingers.

matory disease of the appendages, may closely simulate a pelvic abscess. In fact, even in skilled hands, a vaginal incision or puncture may be made into a soft tumor mass in the thought that it is encapsulated pus. Similar errors in diagnosis may frequently occur in other parts of the abdomen. Thus a tense

hydro- or pyo-salpinx may be mistaken for a solid tumor; a distended gall bladder for a tumor of the liver or kidney; a deep-seated collection of pus about the appendix for a tumor of the cæcum or omentum. These mistakes may, in some

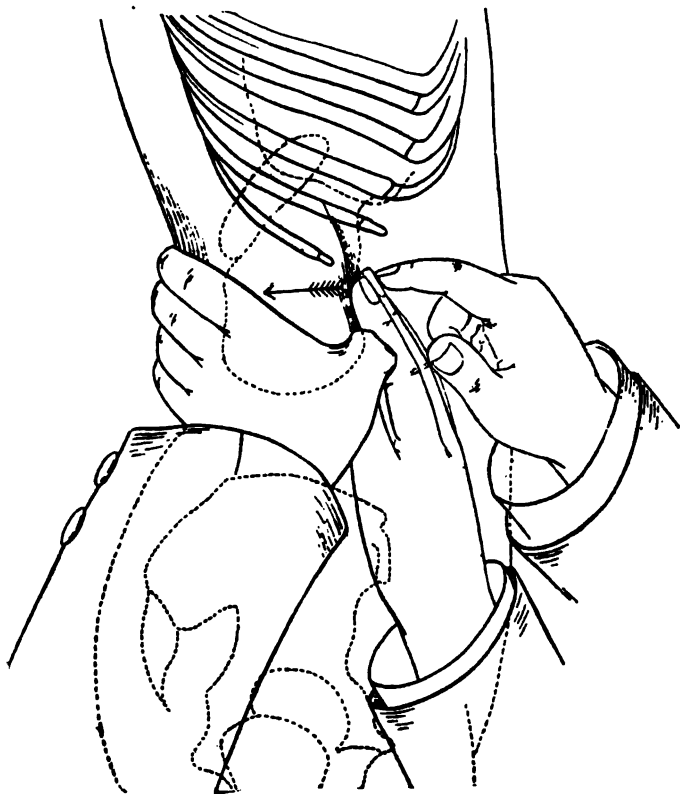


FIG. 2.—Trimanual percussion of fluid tumor in the region of the liver and kidney. One hand is sunk deeply into the loin, slightly posterior, thus pushing up as far as possible the tumor, while the other hand presses downwards against the tumor. Percussion is then made by the assistant the same as in the pelvic examination.

instances, be unavoidable, notwithstanding the greatest refinement in physical diagnosis.

For the detection of fluid, in these obscure cases, I have employed for the last two years or more a trimanual method of percussion, which has, in several cases, proved of signal

value, at once clearing up an otherwise doubtful diagnosis. This method was first employed as a means of differentiation between fluid and solid pelvic tumors. On bimanual examination of a pelvic mass of questionable consistence, the intestines intervening between the anterior abdominal wall and the tumor may dissipate the percussion impulse of the abdominal hand, and although fluid may be present, a wave of sufficient intensity to be felt by the vaginal touch is not induced. To overcome this difficulty the tumor mass should be confined as closely as possible between the two examining hands, while the percussion is made by an assistant. With light, quick taps, even small collections of fluid may be detected by the quick, responsive, pulsatile wave passing from the abdominal to the pelvic hand (Fig. 1). Since proving the value of this method in pelvic examinations, I have systematically employed it in the differential diagnosis of abdominal tumors. In this way an adherent and distended gall bladder may accurately be diagnosed, one hand pressing deeply in over the hypochondrium, while with the other deep counter-pressure is made just below the fixed ribs (Fig. 2). If fluid is present, light percussion over the upper hand will give an unmistakable wave in many instances. In one case this method proved of considerable value in the differentiation of an appendicial abscess situated beneath the cæcum and the lower lobe of a downward displaced liver. Only through the employment of this method was it possible definitely to recognize the deep-lying encapsulated pus, the ordinary percussion wave being destroyed by the superimposed liver. I find this method of signal value, for it is of great assistance in clearing up doubtful cases which hitherto have only been definitely settled by an exploratory incision.

I have looked over various text-books and the leading reference books to discover whether this method has been hitherto described, but so far find no account of it, and therefore deem it sufficiently novel to merit publication.

A CONTRIBUTION TO THE ÆTIOLOGY OF UTERINE MYOMATA.*

BY WM. CASH REED, M. D.,

Honorary Assistant Surgeon and Joint Gynecologist with Dr. Hawkes to the
Liverpool Hahnemann Hospital.

I have for some years past been impressed by the fact that a considerable proportion of persons who are the subjects of uterine myomata are also the subjects of a condition of pulse which has hitherto escaped detection, or at any rate description. I refer to that which indicates what is known as high arterial tension.

My object is to try and show that this high arterial tension, when it occurs, is not merely accidental, and that in certain cases it is not due to conditions extraneous to the fibroid, but that it has some specific relation to the presence of the myoma.

I propose first of all to briefly narrate a case which I had the opportunity of closely watching for more than twelve months. In it there existed a large fibroid, but no cardiac nor renal disease, and yet a markedly high tension pulse existed. I could discover no condition present which could account for this, except the myoma itself. Miss S. S. was found by accident to be the subject of a fibroid thirteen years ago. For twelve months or so before I saw her she had been an invalid consequent mainly upon the drenching hemorrhages which occurred every month.

Severe phlebitis was present also in this case from time to time. The gravest feature, however, of the case consisted in the occurrence now and again of apoplectic attacks, characterized sometimes by an impairment of sight and hearing, sometimes by a paresis of left hand and both legs, and sometimes by temporary paralysis of the seventh nerve of central origin. The worst attack, however, was one which resembled epilepsy or eclampsia, at the outset. This was followed by a week of profound coma, which was succeeded by symptoms lasting some weeks, characterized by great violence of demeanor,

* British Homeopathic Society.

shouting, breaking windows, spitting, etc. There was now general loss of power, and aphemia, viz., loss of memory of words, e. g., Bengier was pronounced "Menger," Mutley—the place where she lived—was called "Mufrow," "Migby," or "Moysey," and the name "Wicker" employed to designate that of Wesley.

Thus we had a picture of profound central nerve disturbance, the lesion probably affecting essentially Broca's convolution. There was now for the first time some hypertrophy and dilatation of the heart associated with the arterio-fibrosis present, which latter had resulted in the easy rupture of the cerebral vessels.

The patient still lives, though, I need scarcely add, she is a confirmed invalid.

For the purposes of this paper and to point the moral, it is necessary for a moment to dwell upon the chronological order of events in the case. I have said that there was no kidney mischief, nor, except as a late manifestation, any cardiac disease.

Freedom from the former was carefully ascertained by the absence of albumin, and the presence in normal proportion of urea; moreover, there were no tube casts of importance. The cardinal point in this case was, that underlying all was a prolonged, "tangible" hemorrhagic drain, producing a marble whiteness of the skin, and blanching of the mucous membranes. For several years this had gone on, and was practically the only sign of importance: of how great importance it was, the sequel shows. Its gravity was, and I am sure this is frequently the case, unrecognized. The anæmia, as an index of portentous events in these cases, is, I am sure, frequently overlooked, or at least minimized. During the several years it existed it was doubtless initiating the arterio-fibrosis which supervened, on account of the defective blood supply to the vasa vasorum. Then followed arterial rupture and probably also thromboses, and finally the hypertrophy and dilatation mentioned. It may be asked, why attribute such serious effects to the anæmia alone? The answer is that this was the only outward and visible sign of disease which for years existed. The other conditions were secondary to it, and as if to make of this proof

more positive, it is certain that when the profound anæmia had been overcome (mainly by a very free curettage of the uterine cavity) the patient, though looking almost well, had the worst apoplectic attack of all.

The typical high tension pulse tracing from this case, taken with a Dudgeon's sphygmograph, is exhibited as No. 1 of this series.

Arising naturally out of the foregoing, and as a further comment upon the case, it seems fitting to glance at the question of the development of uterine myomata. At the outset, however, one must state that it is very obscure, and the inferences are, I think, problematical. There is no doubt, however, that certain data exist which tend to connect very closely the histogenesis of fibroids with changes which are essentially vascular; e. g., Klebs maintains "that they are due to a proliferation of the connective and muscular tissues of the blood-vessels." Kleinwäcker, in the "*Frauenarzt*" of September, 1894, refers to the researches of Rösger as confirming a theory of his own regarding the development of fibroids. Essentially it is that the walls of the uterine vessels, and the uterine walls themselves, are developed from one and the same fetal structure, and he maintains that myomata are originally developed from the muscular coat of the uterine arteries. Further, he observes that the action of the muscular fibers of the uterine walls is directly designed to influence the blood supply.

From the above considerations the conclusions would seem warranted that when some factor tends to disturb the balance of the circulation in the uterine vessels and the uterine walls, aberrant action ensues, which results in the form of neoplasm now under consideration.

I now refer to the importance of fibroids.

Probably there is little in medicine or surgery which has created more controversy than the importance, as regards the patient's welfare, near and remote, of uterine myomata. Some look upon fibroids as of no more importance in the economy than, say, an encysted bullet might be, whilst others regard them as embodying in themselves the very sentence of death to their host. The first, or optimistic view, is one which is adopted by those whose vision is bounded by a very near

horizon, and whose estimate of the remoter possibilities, I might almost say, probabilities of fibroids is not according to clinical history. Of this I have something more to add shortly. The second, or pessimistic view, is one which can with as little justification be maintained, for the logical outcome of it is the adoption of surgical measures in well-nigh all cases, and this, to my mind, is clearly unjustifiable. I have purposely said nothing about remedies as such, because it is foreign to the inquiry intended in this paper, not because it is one which is, I think, barren of results.

It must be obvious to all who take an interest in this particular branch of gynecology, that women suffering from uterine myomata are essentially short-lived. There are, of course, plenty of instances to the contrary, but it must be borne in mind in forming a conclusion, that the numerical equivalent of those who succumb in the earlier years to the stress of the situation, who, in short, drop by the way during the seasoning process, is very great.

The life-history of a uterine myoma is a curious and very interesting one, and I hope to show that it is so, by reference to an instance or two, not of what I have read, but rather seen and handled.

The first case is one which tells of the spontaneous delivery of a pedunculated myoma, and death from shock.

Several years ago I was asked one day, on my rounds, to see a person who was said to be very seriously ill. I found a youngish woman in great distress with pelvic pain, dysuria, and the discomfort incidental to a profuse purulent and ichorous vaginal discharge. She had a high temperature, doubtless due to an autoxæmia induced by the latter. She had one child a year old, and I was told she was not pregnant.

Almost presenting at the vulva was a hard globose body, of the consistence of a fetal head, but wanting in the characteristic landmarks of the latter. On closer investigation this was found to be an impacted fibroid, completely jammed in the true pelvis, but tending to become procident. To make a long story short, the urgency of the situation was mitigated by suitable measures, and eventually the patient so far improved as to be able to walk a short distance. Now came the

question as to what one's duty was as regards the present distress and the future possibilities. I wanted to remove the growth, but the risks of this were considerable, and a well-known surgeon whom she now saw advised against it, substituting the subcutaneous injection of ergot. Time went on, and no improvement occurred. She sought rest and change in the country, and strolling about one day some distance from home, the whole mass suddenly protruded between the thighs, and she died then and there from shock and syncope.

Had it not been far better to risk something, or even much, to have saved her from this?

The second case which I have to refer to is one of profound general break-down due to the presence of a very large myoma, and shows essentially how the brunt of this is ill borne by the cardio-vascular system.

It emphasizes also the importance of taking a comprehensive view of the life-history of the disease under consideration. The patient in this case was awaiting the removal of an immense fibroid by operation. Six weeks had been occupied in preparing the patient, by rest, nutrition, and hæmatinics, and the time seemed now ripe for relieving her of the burden. This it was intended to do the following day by very able hands. A final examination of the case was now made, when quite suddenly signs of cardiac failure manifested themselves. The face became cold, and other signs of collapse followed. Death ensued within a few hours. The post-mortem revealed very extensive and complicated adhesions of the fibroid to viscera, and the heart was found to be "fatty and flabby."

Here was another ocular demonstration of a cardio-vascular degeneration associated with fibroids, a condition which has been fully recognized, in recent years at least, by eminent authorities.

My third case is one which shows the almost intolerable burden of a large myoma, the removal of which very early in its life-history would have proved of inestimable value.

This patient I saw a few years ago with Dr. Barrow. She was single and aged fifty-five. For twenty years she had had the misfortune to be the victim of a fibroid, which had, latterly at any rate, become the subject of cystic degeneration. It was

now of enormous size, occupying the entire distance from the ensiform cartilage to the pubes, and at the former site projecting shelf-like for two or three inches, whilst the rest of its contour was correspondingly conspicuous. The chief distress from which this lady suffered, apart from the bulk of the tumor, was from violent attacks (sometimes weekly) of stercoraceous vomiting. And now comes the curious and interesting point in the history of this tumor. Some ten years ago, when of course it was very much smaller, arrangements had been made by a surgeon for its removal and the particular day specified, when the surgeon quite suddenly died. Thus matters drifted, and some years afterwards she was seen by the late Dr. Greig Smith, who declined to operate on the ground of risk, and when I saw the patient surgical measures were of course still further out of the question. Dr. Barrow tells me that recently the patient died, worn out by long-continued suffering. How much better to have taken the risks at an earlier date.

I will now touch upon what may be termed the close of the life-history of a fibroid.

It is frequently said that myomata "dry up" or "shrink" at the menopause. I think an error is liable to creep in here. It is true that the stress of the symptoms is abated, and sometimes nullified, at this period of life, by the natural involution of the sexual apparatus which takes place then, and which extends its influence also to the neoplasm. This, in like manner and *pari passu* with the other metamorphoses incident to this epoch, undergoes senile atrophic changes. At least this has seemed the explanation of sundry cases I have watched.

In spite of this, however, a great authority, Bland Sutton, goes so far as to say that the disappearance of a myoma, in the sense of its "drying up," at the menopause is "an event almost as rare as the advent of a comet!"

I have seen, at the Berlin Frauenklinik, instances of calcareous degeneration of fibroids and there, as elsewhere, unfortunately, instances also of malignant change, chiefly sarcomatous.

That, however, which seems to me of more frequent occurrence in the latter days is a necrosis which may be mistaken

for malignant change, but which lacks the profound lethal characters of the latter. This necrosis is characterized by a very offensive and profuse discharge per vaginam, and in one case I curetted the uterine cavity for this symptom alone, regarding it as portentous, and the patient did well. Two other cases I have known, both of true necrosis, one terminating the life of the patient, and the other threatening to do so in the near future.

I now refer to my fourth and last case, seen only a few months ago, because it tends to emphasize the desirability of taking a wide survey in any given case of fibroid.

This lady, some years past the menopause, was the subject of a very large myoma, which latter was apparently responsible for symptoms which were causing some uneasiness. Essentially these were gastro-intestinal, the patient having very little power of digestion and assimilation, and being troubled by diarrhea and frequent vomiting. Marasmus was marked, but the patient had for years been exceedingly thin; the wasting, however, was found to be progressive. Underlying all this she was the subject of a persistent tachycardia, associated formerly with an enlarged thyroid. A tracing is given of the pulse, and is on the table. I could not feel satisfied that the fibroid was alone responsible for the symptoms, or should have advised removal. On making a most careful rectal examination one day, I was sure that some portion of the pelvic mass was of a different consistence from that appertaining to the fibroid which occupied the pelvic basin. The part referred to was softer and seemed dissociated from the myomatous mass. Here then was the secret of the down grade of this patient, who in a week or two afterwards died, doubtless from the malignant disease present.

Since commencing this paper a curious, and perhaps unusual, experience has befallen the writer. That which I started to try and prove has loomed less as a definite factor than was anticipated. In one sense this is a source of congratulation and in another of humiliation. Of congratulation because it is, I believe, usually considered that an inquiry which is really scientific is beset with contradictions and doubts, and hence the inference is in some sort consoling! Of hu-

miliation because I thought to have found more cases of fibroids indigenous to Lancashire, which would repay investigation, with regard to pulse tension. My friend, Dr. Hawkes, has kindly done what he could, but his large and valuable mass of clinical material, the result of years of hard work, requires focusing for utilitarian purposes.

Although I am indebted to two or three friends for their views on this subject, yet I have avoided all reference to them, or influence by them; otherwise the conclusions shortly to be referred to might have been amplified. I preferred, however, that these, imperfect as they are, should stand or fall on the merits of the forty or so cases stated at the outset as under review.

Before coming to the "conclusions," however, it is necessary to remind ourselves of what is typical in a sphygmographic tracing of high arterial tension. It is essential also to refer to a few of the accepted canons of high tension pulse.

With regard to the first, the type, Broadbent says we have an "upstroke of a faint inclination forwards, a round or flat summit and a gradual decline without dicrotic notch."

How far the tracings here shown conform to that type you will judge.

With regard to the second point, the conditions which are accepted as contributory to the "high tension" pulse, a passing reference is necessary to a few of them.

Those which have a bearing more or less close upon the subject in hand are four, viz.: (1) Capillary resistance, associated with imperfect metabolism, and occurring conspicuously, of course, in cases of renal mischief. This latter cause I have, however, carefully excluded. (2) In pregnancy high tension is observed. (3) In anæmia also, and (4) in constipation.

Those which have no bearing upon the subject, e. g., digestion, migraine, nervous erethism and the like, need not be referred to further.

CONCLUSIONS.

(1) High tension is a frequent, but not an invariable accompaniment of uterine myomata.

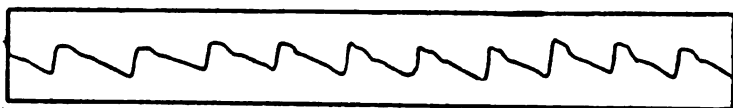
(2) It is, I think, more marked in the soft than in the hard variety of this disease.

(3) Fibroids are under certain conditions excitants of high tension.

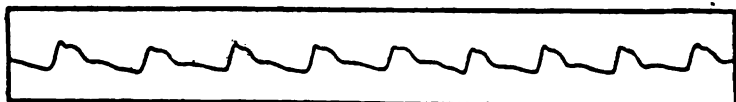
(4) The removal of a fibroid may alter the pulse tension materially, but the way in which it is altered is too inconstant to form in the meantime definite conclusions.



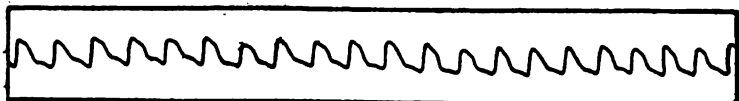
Typical average normal tension.



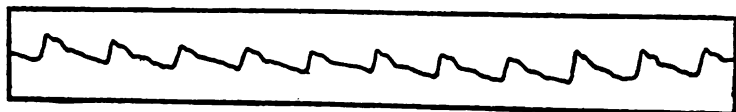
Typical average high tension, (Fibroid 7 or 8 lbs.)



Tracing from Case No. 1, in which no factor could be held responsible for the high tension except the fibroid.



Tracing from case of fibroid, malignant disease and tachycardia.



From case of soft myoma with moderate high tension.

PULSE TRACINGS.

NEED OF A COMPREHENSIVE DIAGNOSIS.

I wish, in conclusion, to say a word as to the position, as a pathological entity, which a fibroid holds in the economy,

in other words, to define its "sphere of influence" in any given case. To this end it is not, I think, too much to claim that a comprehensive diagnosis includes the whole of the following considerations, and having stated them, I conclude my paper.

- (1) The size and connection of the myoma.
- (2) Is it the hard or soft variety, or a combination of both?
- (3) Is it primarily submucous, intramural, or subperitoneal?
- (4) Is it homogeneous or heterogeneous?
- (5) Are there any indications of degeneration, and if so, of what?

As auxiliaries to deciding these points the following should, I think, always be done.

- (1) The fundus oculi examined.
- (2) The urine tested for albumin and tube casts, and especially should an estimation of the urea be obtained.
- (3) The blood should be examined with regard to its depletion in red corpuscles. [Recent researches imply that there is a great deal to be learned under this head with reference to fibroids.]
- (4) A sphygmographic tracing should be made and preserved for future reference.



RULES FOR THE GUIDANCE OF NURSES TO PREVENT INFECTION OF THE BIRTH CANAL.

FORMULATED BY L. L. DANFORTH, M. D.

- (a) When labor begins give a large enema of soap and water.
- (b) Give a general bath with soap and water (have water comfortably warm) and put on clean clothing, fresh from the laundry if possible.
- (c) Scrub genitals, perineum, lower abdomen, thighs, and buttocks with soft soap and warm water, using brush; follow this with a thorough washing with bichloride (1-1000), using special brush kept for that purpose. After this cover the genitals with a pad of absorbent cotton soaked in bichloride (1-1000), and wipe the other parts dry from the bichloride with a sterilized towel. The bichloride pad may be held in

place by a piece of gauze fastened to a gauze strip around the abdomen. The patient may then sit up or walk about until the pains become severe enough to confine her to delivery table.

(d) When an examination is to be made, the hands are to be sterilized according to "Rules for Disinfection of Hands," and the bichloride pad is to be removed by the sterilized hands, and after examination is to be replaced by the same. No unsterilized hands, instruments, or dressings are to be allowed to touch the genitals.

Immediately after the birth of child its eyes are to be washed out with a solution of boracic acid, after which a few drops of two per cent. nitrate of silver sol. are to be instilled into each eye.

(e) A fresh bichloride pad is to be placed on the genitals and left there until the placenta is expelled.

(f) After the placenta has been expelled and the hemorrhage has ceased, the genitals are to be washed with bichloride (1-1000), the dressing applied, and the binder put on.

(g) Every time it is necessary to remove this dressing a fresh one is to be applied with the same antiseptic precautions with which the first one was put in place. The hands are to be sterilized as below directed. Catheters, douche nozzles, and everything else coming in contact with the genitals must pass through the process of sterilization, and nothing unsterilized is at any time to touch the genitals.

(h) No douche is to be given except by special orders.

Patients need not be catheterized unless they experience difficulty in urinating, or when a severe laceration of the perineum has occurred.

Change dressings on patients every six hours and train them, so far as practicable, to urinate only at such times.

In changing dressings, slip bed pan under patient, remove dressings, and allow patient to urinate.

Wash genitals by allowing a warm bichlorate sol. to flow gently over them, apply a fresh dressing, and reapply the abdominal binder.

(i) In all emergency cases, such as patients brought into the lying-in room from outdoor service, whether in labor or after labor has been completed, or miscarriage cases, same rules as above are to be observed to secure cleanliness, except preliminary bath.

Such patients are to be made thoroughly clean, receive a vaginal douche of bichloride solution (1-1000), and have genital hair removed.

(j) In cases of cracked nipples, disinfect hands as above before dressing nipples and manipulating breasts.

FOR THE DISINFECTION OF THE HANDS.

- (1) Trim the finger nails short and keep clean under them.
- (2) Scrub hands and forearms vigorously with brush in green soap and warm water for three minutes by the watch, giving special attention to the irregularities about the nails. Rinse off with boiled water (cooled).
- (3) Then scrub hands in either of the following solutions for three minutes by the watch.
 - (a) Bichloride solution (1-1000), using a separate brush.
 - (b) Permanganate of potash and oxalic acid.
 - (c) Chloride of lime and washing soda.

FOR THE GUIDANCE OF PHYSICIANS TO PREVENT INFECTION OF THE BIRTH CANAL.

- (1) Before any patient is examined the external genitals are to be cleansed and rendered sterile according to the "Rules for the Guidance of Nurses."
- (2) Emergency cases brought in from the outdoor service, whether in labor or after delivery, or miscarriage cases, must receive a vaginal douche of bichloride of mercury (1-1000) after the external cleansing and before an internal examination is made.
- (3) Simple cases attended by the house physician alone do not require a douche before delivery.

In all cases a bichloride douche (1-1000) is to be given after delivery (vaginal only).
- (4) When an extraordinary amount of internal manipulation has been required, as in high forceps operation or version, an intra-uterine douche of lysol (one per cent. strength) or bichloride (1-10,000) is to be given.
- (5) In cases of a dead or decomposed fetus, a hot intra-uterine douche (bichloride 1-10,000) to be given.
- (6) All intra-uterine douches are to be given by the house physician under the strictest antiseptic precautions.
- (7) It is the duty of the house physician to see that no unsterilized article is allowed to touch the genitals.
- (8) All placenta are to be examined carefully under water, by the house physician, and the greatest care taken in the delivery of the placenta and membranes, to see that no particles are left in the birth canal.
- (9) It is the duty of the house physician to see that the "Rules for Nurses" and the "Rules for the Guidance of Students" are faithfully carried out.

Current Comment.

Alfred Worcester, M. D.:

I have had a very sad experience with the few cases I have seen of *puerperal insanity*, and it seems one of the most dreadful things that can happen. I can recall five cases in about a thousand cases of obstetrics, and four of these five were fatal. None went to an asylum. One fatal case was suicide, she having previously killed her baby and another child. She had shown unmistakable signs of insanity in previous confinements. I cannot help thinking that puerperal insanity is escaped barely only in many cases. I have often noticed symptoms that seemed to me threatening—cases in which everything else was favorable. When I see a woman becoming suspicious when such a thing is utterly foreign to her nature, or unwilling to see her children or husband, I think that it should be taken account of, and I always am at pains to separate such a mother from her family, and warn the nurses to keep the sharpest kind of a lookout. I can recall several cases in which the woman acted in a strange way in the first few days after labor, such as getting up and wandering about the house when not watched. I feel that it would be a disadvantage to lull our professional brothers into a feeling of overconfidence and security about puerperal insanity. I think increasing emphasis should be laid on the necessity of guarding in every possible way the mental processes of the mother during pregnancy and labor; the necessity of giving the mother complete physiological rest before and after confinement rests heavily on us.

I feel that aside from all provoking causes there is in the physiological drain of pregnancy and confinement a large predisposing cause for mental lesions that should be carefully borne in mind. Two of my four fatal cases were very directly associated with albuminuria. I believe in keeping these cases at home, if the home can be turned into a hospital, but that can be done only rarely. When it comes to the question of

artificial feeding, the patient is much better off in a hospital than at home.

♦ ♦

J. F. Percy, M. D.:

A uterus the chronic subject of subinvolution will not regain either its normal weight or position if it is merely put back where it is supposed to belong. No pessary, no round ligament operation, ventro-suspension, plastic operations on the vagina and perineum, or removal of the uterus will permanently cure. The imperative thing in the cases of this character that I have had has been to lighten the weight of the uterus. Do this and the round ligaments, if this be their function, will be enabled not only to pull the descended organ back into place but will keep it there. The treatment, therefore, of the two conditions *elongation of the cervix* in the one case and *descent of the uterus* in the other, is as follows: High amputation of the cervix by freeing it from the vaginal attachments.

This dissection must be continued up to the body of the uterus before the cervix is removed. A very important practical point just here is this: Do not let go of the resulting stump of the cervix until the vaginal walls are fastened again to the cervix. It has happened to surgeons who were doing the operation for the first time to let go of the cervix and be unable to grasp it again without an enormous amount of difficulty. The ease with which the round ligaments pull the prolapsed genital tissues into their normal position is not the least interesting of the results following the operation.

Where the uterus is really prolapsed and the woman is nearing her fortieth year amputation of a third or two-thirds of the organ will give the same results as when the cervix alone is prolapsed. The corner stone of the whole treatment is to preserve the round ligaments in their attachment to the uterus and to reduce the weight of that organ. Occasionally the elongated cervix and the descended uterus are found together. Under such conditions the cervix with part of the uterus should enter into the amputation. It is unnecessary, I am sure, to utter a warning in regard to the possibility of entering the bladder or rectum during the dissection of the

cervix or uterus. If the prolapsed tissues from exposure and friction have become thickened and leathery it is well not to attempt the repair of the perineum. To do so is to invite the death of the patient.

This result in three cases followed the combined operation in the practice of one of the prominent surgeons in this country (Shock). Since he related his experience to me I have not attempted it except in the cases where the perineal tissues were only lacerated but otherwise normal. Let me advise further that when the vaginal walls are fastened anew to the cervix it be done with silkworm gut. A number of cases have been reported where the patients have nearly perished from hemorrhage occurring from a week to ten days after the use of cat-gut. It is well to leave the silkworm-gut sutures long enough to just protrude from the vulva. This renders their removal easy when the patient is anæsthetized for the second operation of repairing the perineum.

♦ ♦

J. B. Swift, M. D.:

In the one case of *face presentation* that I have seen, I managed to change it to an occiput anterior by grasping it and bringing it down. I have been surprised to see in a recent article in a medical journal that it is an easy thing under deep anæsthesia to push the head back to correct such malpositions.

♦ ♦

C. M. Green, M. D.:

Referring to the above comment, I think this procedure depends on the amount of uterine retraction. If the uterus is not too dry and retracted, the head may be pushed up and flexed, or internal podalic version may be performed. I have succeeded in doing this in one of the four cases of low face presentation I have seen. But this would be hazardous, if not impossible, if the uterus is markedly retracted. It is difficult to believe that a fully extended head in the pelvis can be flexed; unless the head is relatively small. But Malcolm McLean reports two cases in which he has successfully delivered in this way. If the low face presents the chin anteriorly, delivery by forceps is not difficult. But when the chin is posterior, and the head cannot be flexed nor be pushed up, forceps may secure an anterior

rotation of the chin. Failing this, nothing remains but symphyseotomy or craniotomy.

♦ ♦

H. R. Spencer, M. D.:

Concerning the diagnosis of *breech presentations*, the first thing necessary is to make out by palpation the direction of the long axis of the uterus. This may often be detected by inspection, but may always be determined by placing the two hands symmetrically along the sides of the uterus, and depressing the hands during expiration; in cases where the wall of the uterus is flaccid, it may be necessary to wait for a momentary contraction, which causes the margin to be clearly defined. Having ascertained by this manipulation that the long axis of the uterus corresponds with the long axis of the mother's body—approximately, for the fundus is often tilted a little to one side, usually the right—the observer is in the position to diagnose that the child is presenting by one pole; and further examination is necessary in order to determine whether it is the pelvic or the cephalic pole which is presenting.

The first step is to explore the lower segment and the pelvic cavity. For this purpose the hands should be placed flat on the abdomen symmetrically, with the fingers pointing downwards, one beside each rectus, and with the finger tips just above the pubic rami. At this stage a very common error is that of regarding the upper border of the pubic hair as the level of the top of the pubes, whereas it is often three-quarters of an inch or an inch higher than the pubes. This point is of more importance at the early periods of pregnancy than later on, but it should be borne in mind in order that full advantage may be taken of palpation. Then the fingers are depressed by flexing the metacarpo-phalangeal joints, keeping the palms flat during the patient's expiration, and, if nothing be felt occupying the pelvic cavity, the hands are placed in the same direction but at a slightly higher level, with the finger pulps over the internal abdominal rings. The sensitive surface of the fingers will be thus placed over a thin part of the abdominal wall, and by depressing the fingers as before during expiration the fetal pole occupying the pelvic cavity or situated over the

pelvic brim can be felt. But unless deep pressure be made, especially in the case of primiparæ, it is possible for the head deeply placed in the pelvic cavity to be overlooked by a careless observer, and for the chest of the child to be taken for the breech. If the cephalic pole is below, it has the characters of a large, rounded, hard body, felt higher on one side of the pelvic brim than on the other (Pinard's sign). It may give ballottement, but not usually in advanced pregnancy. If, however, it is the breech which presents, we find at the pelvic brim or in the cavity a body smaller, softer, and less regular than the head, and often having movable bodies (the lower limbs) near it, and the body has not below it the hard head, as the child's chest would have; it also has a tendency to revolve during manipulation around the long axis of the child's body, a feature rarely met with in the chest or head at an advanced period of pregnancy. More detailed examination may make out the U-shaped hollow of the loin (formed by the loin, the anterior part of the ilium, and the thigh), which differs from the posterior axillary fold in the chest by the presence of the hard corner of the ilium; in some cases, too, the distinctive characters of the feet may be made out.

There is one form of monster in which the head is small and resembles the breech somewhat closely. I allude to the anencephalic fetus. I have had two opportunities of examining the abdomen during pregnancy in cases where the anencephalic fetus presented by the head. Neither case was diagnosed. The first, examined at a comparatively early period of pregnancy, did not attract any special attention. In the second case I recognized and noted the small size of the head, but did not, as I should have done, make a bimanual examination to clear up the diagnosis. By this means, and perhaps by the production of fetal movements on pressure upon the remains of the brain, I think the diagnosis could be made, but I am not aware that this has ever been done by abdominal palpation.

By the method and with the precautions I have mentioned the diagnosis of breech presentation can be made in the great majority of cases by the abdominal examination of the pelvis and lower segment; but there remains the examination of the fundus of the uterus, which yields results even more valuable,

for it is at the fundus that in these cases is found that part by which human beings are best recognized—the head. In order to feel it the hands are reversed; that is, they lie over the body and fundus, one on each side, with the fingers pointing upwards, and while the uterus is fixed by the left hand the right depresses the abdominal wall as before and moves over the surface until the head is got between the fingers of the two hands. If this be impossible, then the head may be felt by the movement known as ballottement, that is, by feeling the head re-percuss the fingers of the examining hand when they are smartly “dipped” into the abdominal wall. And in some cases the head may be tossed like a ball between the fingers of the two hands. I have found that an even better means of detecting the head is by a movement of shaking or “succussion” with one hand. For this purpose the left hand grasps the fundus lightly, and by a movement of shaking the head can be tossed between the fingers and the thumb, and vice versa, with remarkable distinctness. In many cases, too, the size and consistence of the head can be better felt by grasping with the left hand than by both hands. Dr. Budin has pointed out that the fundus of the uterus is tender over the child’s head during the ordinary dipping movement for obtaining ballottement. I have often observed this tenderness, but it is not confined to breech cases, though more marked in them. It is to be remembered that occasionally ballottement can be obtained with the breech, though never with the same distinctness as with the head.

The characters of the head at the fundus, to which attention must be directed, are its large size, rounded shape, ready mobility, ballottement, and the groove formed by the neck between the head and the back, which is absent between the breech and the back. To this groove attention has especially been called by Professor Pinard.

About the palpation of the sides of the uterus I need say but a few words. On one side of the uterus will be felt a convex resistant surface passing below without break into the breech, but above separated from the head by the groove of the neck; on the other side, the flatter or concave, less resistant, less regular surface interrupted by movable bodies (the limbs),

and usually, owing to the presence of the liquor amnii or placenta, yielding a fluctuation thrill more marked than on the other side.

Concerning the diagnosis of presentation of the breech by vaginal examination I need say nothing, the subject being well treated in every text-book of midwifery. I will only mention that when the breech presents obliquely—"presentation of the haunch" of old writers—the presence of the anterior corner of the iliac bone in the hollow between the limb and trunk will enable us generally to distinguish the haunch from the shoulder at an early period of labor before the other characteristic features can be made out. But while the liquor amnii is present, and the uterus not contracting, the diagnosis can almost always be made without resorting to a vaginal examination.

I now proceed to consider the question of the treatment of presentation of the breech by external version towards the end of pregnancy.

I have notes of six cases in which the operation has been performed at periods varying from 7 1-2 to 8 1-2 months of pregnancy. The mothers were delivered, with head presentation, and recovered and the children survived. I have also performed the operation several times in the class of gynecology. The little operation is very simple, takes but a few seconds as a rule, and causes no discomfort to the patient. The patient lies as for abdominal palpation, and the child's breech having been seized with one hand, and pushed or lifted up, is then pressed to one side and upwards, while the head, seized with the other hand, is pushed in the opposite direction. I find more power is obtained in a difficult case by directing the head downwards and towards the side on which the back of the fetus lies and thus transmitting the force in the direction of the spinal column, than by directing the head towards the abdominal aspect of the child, which tends rather to flex the head upon the body than to make the fetal body revolve. The operation is usually remarkably easy, and rarely fails when carried out at the period recommended, namely, at about 7 1-2 months of pregnancy.

A tendency for the malpresentation to recur exists in those

patients who have a pendulous abdomen; but generally an abdominal belt, or rest for a few days in the recumbent position, will prevent this. Some sort of abdominal belt should always be worn after the operation, unless the hand sinks well into the pelvis. Dr. Pinard has designed a special belt for the purpose. Its main feature is the presence of inflatable air-cushions inside the belt which are applied to the two sides of the uterus and maintained the fetus in position. The belt is ingenious, but somewhat cumbersome. I have found an ordinary abdominal belt, and even a home-made flannel belt, sufficient for the purpose. It is advisable that the abdomen should be examined occasionally to see that the fetus maintains its attitude. In the six cases mentioned it has done so and the child has been born alive by the head. It is sometimes found that the child, though maintaining its presentation, alters its position, as, for example, from a first vortex to a second. This change I have often noticed in ordinary head presentations during the last few weeks of pregnancy, but it is possibly more common after external version, for the reason that a breech with the back to the left is usually converted into a vertex with the back to the right, and that the child's back will tend to revolve to the side it previously occupied, possibly on account of the particular shape of the uterine cavity.

The period at which the operation should be performed is preferably at 7 1-2 months of pregnancy. Before this date the presentation of the child is not definitive, and the operation, therefore, would be in many cases unnecessary; after this date, the fetus rarely changes its presentation, except in cases of contracted pelvis or hydramnios or pendulous abdomen. The operation becomes progressively more difficult as term is approached, and it will usually be found to be very difficult or impossible during labor at term.

There are several contraindications to the performance of external version for breech presentation—multiple pregnancy; a considerably flattened pelvis; a dead fetus; a malformed uterus, and placenta prævia. I have also seen the operation fail during labor, owing to the cord being wound five times round the child's neck. Nevertheless, in all ordinary cases the operation is very easy and painless, and should in my

opinion be carried out whenever the breech presents and the patient is advanced to 7 1-2 months of pregnancy.

This operation, of course, involves the necessity of the patient's being examined during pregnancy, a necessity which is not recognized by all doctors or patients. Yet it is time that this examination became a routine practice, for without it patients and their infants are occasionally brought into the greatest peril, and not rarely lose their lives. As a result of this routine examination conditions may be recognized which can be obviated by timely interference. I believe the presentation of the breech to be one of these conditions; and I am sure that its treatment by external version during pregnancy is so free from objection that it is worthy of extensive trial. It is in the hope that others may be induced to practice it that I have ventured to publish such a small number of cases. It would be a great gain to be able to prevent this dangerous presentation, and to be sure that the child would always present by the head.



C. D. Mosher, M. D.:

While true *dysmenorrhea* is far too frequent, much of the so-called menstrual suffering is not dysmenorrhea, but simply coincident functional disturbances in other organs, induced, possibly, by the favoring conditions of a lowered general blood pressure occurring near or at the time of menstruation. (Goodman's restricted definition of menstruation is: "A periodic sanguineous defluxion from the genital tract.")

When the attention is of necessity directed to so obvious a process as the menstrual flow, untrained women, especially if without absorbing occupation, naturally refer their lessened sense of well-being and diminished sense of efficiency, which may accompany the lowered general blood pressure occurring near or at the menstrual flow, to the function of menstruation. When we remember how firmly fixed is the tradition that a woman must suffer and be incapacitated by this normal physiological function, it is readily understood how many women would call the depression due to lowered blood pressure, menstrual suffering.

All statistics, however extensive or carefully taken, are likely

to exaggerate the percentage of women suffering from dysmenorrhea, because the errors just mentioned are so difficult to eliminate.

The conception that functional disturbances in other organs are considered and recorded as dysmenorrhea was first derived from the study of clinical data and later strengthened by blood-pressure experiments supplemented by notes of the persons studied.

These conclusions would have been impossible had my clinical data consisted merely of isolated statements based on the general impressions, as to their own conditions, of individual women filling out a single menstrual record, and without a personal acquaintance with, and an intimate knowledge of, the habits of life and conditions of work of the women studied. My records include more than three hundred women, collectively extending over more than three thousand menstrual periods. My first work was done in 1893 and still continues.

♦ ♦

A. F. Werner, M. D.:

Among forty-two cases of *chloroform anæsthesia*, of which I have notes, I find three which early showed all symptoms of heart failure and collapse, and which probably would have succumbed but for prompt action by means of strychnine, inversion, and artificial respiration. One of these patients was etherized for laparotomy about four weeks after her chloroform-collapse, without any ill effects whatsoever. To none of those should chloroform have been given.

These three patients were women between twenty-two and forty years of age, chronic sufferers from pelvic disorders, but able to attend to their household duties. They were of fairly healthy appearance and "good color," being easily "flushed," pulse soft, no heart murmurs, urine normal; in fact, there was no apparent cause why chloroform should not be used—but for the heart tones. The quality of the tones was changed, and it is to this I want to draw attention. Instead of the reassuring lubb—dubb—pause or rest, both tones seem to be alike and the pause shortened, simulating the ticking of a watch under a pillow. It may not amount to "embryocardia" or "fetal heart," but approaches near to it. My teachers and my books

had not mentioned this fact in selecting cases for anæsthesia except in this general way: "See that the kidneys, the heart, and the lungs are not diseased," which I took to mean: "No albumin in the urine, no cardiac murmurs, and no lesion in the lungs."

The reason why chloroform should be absolutely contra-indicated, in such cases as the three above mentioned, is evident. The cause of this "fetal heart" is, in my mind, due to either degeneration of the heart muscles from diverse poisons, such as alcohol, antitoxins, and similar ones; or atony of heart muscle from long-continued poor nutrition, probably with slight dilatation, which dilatation is immediately made worse by the chloroform. My attention once drawn to this condition, I have often noticed this "baby heart" in patients after severe fevers and chronic disorders, and my suggestions are: First, to more carefully examine our patients than what seems to be the routine amongst medical men on the coast; second, to more frequently use ether; and third, to remember spinal cocainization.

♦ ♦

C. D. Palmer, M. D.:

If physicians are to save the lives of women from cancer, they must prevent the oncoming of this disease by doing more than has been done in preventing injuries of the neck of the womb in parturition. Lacerations of these parts may unavoidably occur, but many such injuries can be prevented by allowing more time for these tissues to dilate in the first stage of labor. Is it not true that many *lacerations of the cervix uteri* are provoked by some injudicious use of the obstetric forceps, in time or in force, or by an improper use of podalic version? Nature may, and ought to, be directed. She ought to be permitted to take her course in this stage of parturition. Bearing-down efforts at this time on the part of the woman, and undue haste on the part of the physician, have done much harm in this direction.

If now any cervical laceration has taken place to within its muscular substance, especially if so deep that the circular artery is severed, a primary union should be secured by appropriate stitching, on the same principle of conduct that the

accoucheur always repairs a torn perineum at the time of its rupture.

The cervix will be bruised less, and the presenting portion of the fetal body will more easily be directed into the axis of the obstetric canal, if the patient, in the second stage of parturition, is placed on that lateral surface of her body towards which the presenting part of the fetus projects.

A primary tracheloplastic operation is easily and quickly done; catgut is the suture material. Primary union is almost certain. But a secondary tracheloplastic operation is one of the most difficult plastic procedures. Failures to some degree are by no means uncommon. The aim, of course, should be to restore the cervix to a normal size and shape, with a normal os externum. This external opening of the womb, if made too small, may lead to painful menstruation; almost surely will it be a cause of an acquired sterility. A restoration to a natural symmetry of the parts is the chief indication of success.

A sharp curettement of the whole uterine cavity is an imperative preliminary surgical step to the operation. Done at the same time, with proper aseptic precaution, it secures relief to the secondary endometritis. No packing of the uterine cavity ought to be done now.

Any pronounced presence of peri-uterine exudates, evidences of old salpingitis and pelvic peritonitis, with some fixation of the uterus, though not complete, are manifest contra-indications to this operation.

♦ ♦

John M. Batten, M. D.:

As drugs frequently fail to relieve *nausea* and *vomiting* in pregnancy, we must seek some other remedy, and the treatment that has been generally satisfactory with me is feeding, FEEDING, FEEDING the patient, day and night. Of course, we cannot expect to get permanent relief in all cases, but feeding the patient, constantly feeding her, gives, in my judgment, the most relief and comfort. A pregnant woman with nausea and vomiting, then, should have a glass of milk, crackers, oranges, or anything else she may take a fancy to, setting on a table near her bed at night, so she can satisfy her hunger at any time. Before rising in the morning,

she should have a good, substantial meal, consisting of coffee, milk, eggs, mutton chops or beefsteak, buttered toast, or whatever else she may fancy. After partaking of her breakfast in bed she may rise, and during the day thereafter she may take about three more substantial meals. Fasting during the night is conducive to sickness in the morning and possibly during the ensuing day.



G. J. Engelmann, M. D.:

I have looked upon the *chorca of pregnancy* as one of those reflexes to which more attention has been paid in later years, and in writing on a kindred subject some time ago I devoted considerable space to the study of chorea. Since then I have seen two cases. To me they seem not due to anæmia or as of infectious origin, but as neuroses—to be compared with the reflex chorea seen in connection with menstrual and pelvic disturbances in young girls, especially at the time of puberty. The per cent. of cases seen harmonizes with the period of growth of woman, being greatest at the establishment of menstruation and dropping to the minimum with the stopping of the menstrual flow. Lately I saw a very violent case in a young girl coming on with violent menstrual disturbance, the result of a mental strain, which lasted three months. Her chorea ceased with the regulation of her menstrual life. I think that most of the cases occurring in connection with changes in the pelvic viscera, whether pathological or physiological, are reflex as they yield to the removal of the pelvic cause.



P. D. Covington, M. D.:

There seems to be a pretty general impression that in *Cæsarean section*, from the time the uterus is touched by the knife until it is emptied and contraction secured, very free hemorrhage may be expected. In a case on which I operated recently no such bleeding was permitted to occur.

Mary T., aged twenty-nine, white, mult. Three prior bad labors. No living child. Was called to her February 16. Found her having a bad hemorrhage. Six and a half or seven months pregnant. Diagnosis, central placenta prævia. The hemorrhage ceased and did not return until

April 14. As soon after that as I could induce her to do so, she went to the Hamer Hospital, and we began preparing her for the operation, which was set for the 18th. But on the morning of the 17th another alarming hemorrhage compelled immediate action. She was hastily anæsthetized, and with the assistance of Drs. Hamer, Stinchcomb, Carrie Richeson, Pool, and Kitchen the operation was performed.

The abdominal incision, about seven inches long, was made just far enough from the median line to miss the umbilicus on the one side, and avoid opening the sheath of the rectus on the other. A uterine incision about six inches in length was rapidly made down to the membrane, which I merely punctured with the knife at the lower extremity of the incision, and inserting a finger, tore the membrane to the top of the incision. This can be done more quickly than the membrane can be cut, and with much less danger of wounding the child. Lifted the child out by the feet, clamped the cord in two places with artery forceps, cut between them, and handed the child to a nurse, and at once applied my hands, one on each side of the lower half of the uterus, so as to make pressure on the part to which the placenta was attached, while at the same time my fingers were compressing the parts of the broad ligaments which contain the uterine arteries. It was not necessary to feel or hunt for those arteries. Any man who knows enough of anatomy to justify him in doing a laparotomy can, when the abdomen is open, at once so place his fingers that he knows the uterine arteries are under them. Dr. Carrie Richeson made pressure on the abdominal wall so as to keep it closed against the uterus and around my hands. Placing my hands on the sides of the uterus in a position to control the uterine arteries and the placental site, and beginning pressure to dislodge the after-birth, was the work of perhaps one or two seconds. The moment those points of danger were within my grasp, Dr. Hamer proceeded to take out the after-birth, and to put in a row of interrupted silk sutures, including the muscular wall of the uterus, but not the peritoneum. The uterus being under firm but gentle compression, no bleeding worth mentioning occurred, and by the time the last stitch of the deep row was tied the organ had contracted to a hard ball

in my hands, and the danger of hemorrhage was over. The uterine peritoneum was closed with interrupted silk sutures, and the parietal peritoneum with a continuous catgut. Deep silkworm-gut, with a few superficial catgut sutures, closed the external wound. The abdominal dressings were not changed until the sixth day, when the wound was found entirely closed. She has been for several days going about the wards of the hospital, and her recovery seems complete. The baby is a fine large boy, and is apparently in perfect health.

This method of preventing hemorrhage by manual compression over its sources may not be available in all cases. With the placenta differently located, the hands would have to be differently placed. And when the uterine contents were septic, it might require careful manipulation to keep them out of the peritoneal cavity.

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F. W. Taylor, M. D.:

In 10 cases of *delayed respiration* which have come under my observation there was sufficient delay in respiration to cause the fact to be noted, while not enough to prove fatal. In one of these the cord was twice about the neck; in another once, and so short that it was necessary to cut it before the shoulders could be delivered. It is probable that tension on the cords had sufficiently interfered with fetal circulation to cause asphyxia and consequent delay in respiration. At least no other cause was evident. In 6 cases the children were delivered by forceps, 4 by high, and 2 by low. These 6 labors were all long, from sixteen hours to four days, and ether was used for a considerable time. In the other 2 delivery was by podalic version. Both mothers were uræmic; one of them died of eclampsia.

In the case in which the mother died the delay in the establishment of natural respiration was so great that it deserves detailed notice. The mother, a primipara, was within a few days of the expected time of confinement. Symptoms of uræmia appeared ten days previous, increased in spite of treatment, and culminated in blindness and convulsion. Labor had not begun. The os was dilated forcibly and the child delivered by podalic version. Dilatation and delivery occupied three-fourths of an hour. Delivery was not difficult. The child was

cyanosed; the heart beat feebly about 100 a minute. After a few minutes of artificial respiration the child gasped 4 to 6 times a minute. The treatment consisted of baths of warm water alternating with sprinkling of cold, rhythmical traction of tongue, suspension by feet, artificial respiration—both the Sylvester and the Schultze methods. At the end of half an hour the pulse was 25 to 30, the respiration 4 to 6, gasping, the color not improved. Dr. Geo. P. Cogswell, who was assisting me, then began slapping rapidly and vigorously all parts of the child, head as well as trunk and limbs. In fifteen or twenty minutes the heart beat was 80 and the gasps 15. Every remission of slapping was followed by feebler action of heart and lungs, and renewal of slapping by stronger action. Gradually the skin became mottled pink and white, and there were a few feeble cries. An hour and a half after birth, till which time this treatment was continued, the heart beat was 120 and the respiration 20, and persisted without treatment; the color was good.

The child subsequently showed no ill effects of the heroic treatment. For some weeks it did not gain weight, but later thrived fairly, and when ten months old was reported to weigh between 17 and 18 pounds. When this child had repeatedly ceased to breathe as soon as vigorous treatment was withheld, I despaired of its life, assuming that a condition or lesion existed incompatible with life. Its resuscitation was to me unexpected, and may be ascribed to Dr. Cogswell's patient and enthusiastic efforts. One naturally asks what pathological condition was removed thereby. Is it not fair to suppose that in addition to asphyxia the child was suffering from uræmia received from the mother, and that because of this, respiration and heart action could not be maintained except under the influence of excessive stimulation, and that during the hour and a half during which such stimulation was applied, elimination through skin, lungs, and kidneys had been sufficient to bring the blood and tissues into a condition near enough normal to permit vital processes to continue spontaneously? But whatever the explanation, the result encourages longer and more energetic efforts than I believe most of us are accustomed to make in behalf of children born under similar conditions.

Book Reviews.

SAUNDERS' QUESTION COMPENDS.

ESSENTIALS OF THE DISEASES OF CHILDREN. By William M. Powell, M. D. Third Edition. Thoroughly Revised by Alfred Hand, Jr., M. D., Dispensary Physician and Pathologist to the Children's Hospital, Philadelphia. 12mo., 259 pages. Philadelphia and London: W. B. Saunders & Co. Price \$1.00, net.

In this revised edition numerous additions and changes have been made in the book so that it continues to represent the present state of pediatrics. The book aims to furnish material with which students may lay the foundation for the successful practice of medicine among children. The section on Infectious Diseases has been rewritten, as well as many of the paragraphs on pathology. A number of new chapters have been added, among others, one on Infant Feeding.

The practitioner should not overlook the quiz compend. An amazing amount of very useful and up-to-date knowledge may be acquired, with comparatively little effort, from its occasional perusal.

SAUNDERS' MEDICAL HAND-ATLASES.

ATLAS AND EPITOME OF OBSTETRIC DIAGNOSIS AND TREATMENT. By Dr. O. Shaeffer of Heidelberg. From the Second Revised German Edition. Edited by J. Clifton Edgar, M. D., Professor of Obstetrics and Clinical Midwifery, Cornell University Medical School. With 122 colored figures on 56 plates, 38 other illustrations, and 317 pages of text. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$3.00 net.

This book treats particularly of obstetric operations, and besides the wealth of beautiful lithographic illustrations, contains an extensive text of great value. The symptomatology and diagnosis are discussed with all necessary fullness, and the indications for treatment are definite and complete. In this new edition both text and illustrations have been subjected to a thorough revision. Most of the colored plates are new, and

illustrate the modern improvements in technique as well as a vast amount of new clinical material.

Anomalies and pathology of labor receive careful attention. The editor, we consider, exercised excellent judgment in not making additions to the text or altering the classification of presentations, positions, or obstetric operations from the original. The work, therefore, has an added value—that of individuality.

ATLAS AND EPITOME OF LABOR AND OPERATIVE OBSTETRICS. BY Dr. O. Shaeffer of Heidelberg. From the Fifth Revised German Edition. Edited by J. Clifton Edgar, M. D., Professor of Obstetrics and Clinical Midwifery, Cornell University Medical School. With 14 lithographic plates, in colors, and 139 other illustrations. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$2 net.

There is no branch of medicine or surgery that is so difficult to demonstrate as that of midwifery; hence any positive aid, such as this Atlas furnishes, is to be hailed with satisfaction. The author has added to the multitude of obstetric subjects already shown by illustration many accurate representations of manipulations and conditions never before clearly shown. We would particularly call the student's attention to these works, which may be studied in connection with the usual text-books with great advantage, as the German method embodied here is essentially one of demonstration, and does not leave so much to the imagination.

THE MEDICAL ADVISER: HOW TO TREAT THE SICK AND THE INJURED. By O. Edward Janney, M. D., Professor of Practice of Medicine in the Southern Homeopathic Medical College, Baltimore, Md. Homeopathic Pharmacy Co., Baltimore, 1900.

A very valuable little brochure with much sound advice and healthful hints on dietetics, nursing, and treatment. The facts are plainly set forth in comprehensible language, so as to be a boon to patients temporarily out of reach of a physician.

REGIONAL LEADERS. By E. N. Nash, M. D., Author of "Leaders in Homeopathic Therapeutics," "Leaders in Typhoid." Half morocco, \$1.50; by mail, \$1.57. Philadelphia: Boericke & Tafel, 1901.

The author believes that much of the unhomeopathic prescribing is due to the confusion occasioned by the large mass of

material found in the larger works on *materia medica*. In the neat little volume under consideration he has grouped under the regions of the body characteristic symptoms of drugs whose provings show indications for these localities. These symptoms have been carefully scrutinized and none have been admitted except those which are, in the judgment of the author, perfectly reliable. It will be a most excellent aid to the student or practitioner who wishes to impress upon his mind the leading characteristics of our *materia medica*.

WHITMAN'S ORTHOPEDIC SUEGERY. For Students, Practitioners, and Specialists. By Royal Whitman, M. D., Adjunct Professor of Orthopedic Surgery, New York Polyclinic, Instructor in Orthopedic Surgery in the College of Physicians and Surgeons, and Chief of Orthopedic Department in the Vanderbilt Clinic, New York. In one handsome octavo volume of 642 pages, with 447 illustrations. Cloth. \$5.50 net. Lea Brothers & Co.: Philadelphia and New York, 1901.

This very acceptable work is before us, and we very gladly welcome it as an offering which will be of great interest to both the surgeon and general practitioner. Cases requiring orthopedic surgery are first seen by the general practitioner, who should be well versed in the premonitory symptoms of these diseases, so that an early diagnosis may be reached and proper treatment instituted before extensive changes occur. This work is well suited for that purpose, as the text is clear and concise and the illustrations numerous, and for the most part photographic reproductions of actual cases. Some of the newer procedures, such as forcible correction of the deformity in Pott's disease, treatment of congenital dislocation of hip, and the present status of hip disease, receive very careful consideration. To our minds Dr. Whitman's most important contribution to orthopedic surgery is his study of weak foot, a common and distressing condition, which he has placed in a proper light before the profession and instituted means for its proper treatment. The gifted author is modest in his claims in this direction, though his work in this line has been of incalculable advantage.

Translations.

A NEW METHOD OF PROTECTING THE PERINEUM FROM LACERATION.

Hofbauer (*Centralblatt für Gynäkologie*): This method, which is made use of by Hofbauer when the head is about to be born, is as follows: While the right hand lies flat against the perineum and makes pressure from front to back, the left hand seizes the head and turns it through about an angle of forty degrees, so that it passes through the outlet in an oblique diameter. By this means the perineum is at once relieved from pressure and the danger of rupture is avoided. This procedure, which has been named by the author "the anticipated external rotation method," may be employed in the same way in cases of forceps extraction and in breech presentations. The direction in which the head should be turned in vertex presentations, is settled by the position of the back, presumably diagnosed through the abdomen.

UTERINE ATRESIA.

L. Landau (*Berl. klin. Wochen.*) describes a hitherto unknown form of uterine atresia. The patient, aged forty years, had never had any menstrual flow, but at regular intervals of four weeks, from the age of twelve years, she noted severe pains. At the ages of eighteen and twenty-three she sought relief by suggesting that an operation should be performed. During the last three years she became bedridden on account of repeated attacks of pelvic inflammation. Per vaginam he discovered about one-quarter inch inside the vulva an extraordinarily dense mass attached to the fornix and cervix. He could not believe that this mass was a blood sac. Realizing the impossibility of performing a vaginal operation, he proceeded to open the abdomen, and removed the uterus together with the tumor. The parts removed showed *hematometra corporis uteri*, *hematosalpinx* (both sides), right-sided *oöphoritis*, left-sided hemorrhagic cystic tumor of the ovary, *pachypelvic peritonitis*, and some hemorrhagic cysts in the pelvic connective tissue. Situated in the position of the cervix was a rounded growth about the size of an apple, and diffusely

continuous with body of the uterus. This proved to be a mesonephric adenomyoma. He considers that this tumor was produced by the inclusion of the transverse small canals, which cross from the Wolffian bodies to the Müllerian duct, into the substance of the Müllerian duct. On section there was found that the cervical canal was completely missing; not even a suggestion of such a canal could be discerned under the microscope, and yet, in spite of the existence of hematometra and hematosalpinx for over twenty years, the mucosa of the uterus and tubes were still preserved. The pathogenesis of this condition, he explains, must be that the "germ" of the tumor consisted, as stated above, in the little cross-canals becoming included in the Müllerian duct. But the situation requires a further explanation. It suggested that the canals reached a lower lever, either through abnormal persistence or delayed involution. The Müllerian ducts would become contorted in their cervical and formical portions in reply to a hyperplasia of the distal segments of the Wolffian bodies. Thus the canals, which stand as the rudimentary kidney tubules or elements from which the mesonephric adenoma is to be found, become invaginated. He points out that, be the ætiology of other forms of atresia acquired or congenital, this case must be of congenital origin. The case is also a rare one, in consideration of the long-standing hematometra and hematosalpinx, without having caused the death of the patient. He urges strongly that, on the strength of the fact that atresia is very easily diagnosed by vaginal examination, all cases, especially in young subjects, which present symptoms which do not exclude uterine atresia, should be examined either per vaginam or per rectum.

EMBRYOTOMY WITH THE DECAPITATOR (SICHELMESSER).

Holowko (St. Petersburg. med. Woch.) discusses the various methods of treating unrectified transverse position, and gives the details of three cases from his eight years' practice in Dünaburg, illustrating the efficiency and safety of the decapitator: (1) Primipara, with the waters escaping four days and in labor three days, had various manipulations, including traction on the prolapsed arm, made by sundry old wives, before they called Holowko, who found the retraction ring at the level of the navel, and signs of maceration. The neck could not be reached, and the decapitator was, under guidance of the hand, passed through the left armpit to the right side of the neck. The soft parts were divided to the spine, and then

steadied by traction with a blunt hook cut through. The trunk was delivered by pulling on the right arm, the head by the left. The child was very large. (2) Primipara, in labor three days before calling midwife or doctor, was lying on the floor. There was prolapse of right arm and a pulseless cord. When some furniture could be borrowed and patient raised the neck was easily reached and divided, and the trunk delivered by pulling on the arm, the head by external pressure, and the Veit-Smellie grip. (3) Primipara, five days in labor with prolapse of a macerated arm, stinking liquor amnii, and retraction ring at the navel. Division at the first dorsal vertebra was easy, and the trunk and head were delivered as in the last case. The mothers all did well, and only the first had a slight perineal tear.

HYDATID IN RECTO-VAGINAL SEPTUM.

Nicaise and Salomon (Bull. et Mém. de la Soc. Anat. de Paris) report that a woman aged twenty was admitted into hospital for retention of urine; catheterism was difficult. A bulky swelling projected from the posterior wall of the vagina, preventing the finger from reaching the cervix. On rectal exploration it was found that the swelling, which fluctuated distinctly, lay on the recto-vaginal septum. Relatively it encroached but little on the rectum. The cyst reached high, for it extended above the pubes. There was no other functional disturbance besides retention of urine. Lejars made a transverse incision over the most bulging part of the tumor in the posterior vaginal wall. A tense white cyst was exposed and tapped, nearly three pints of perfectly clear watery fluid came away, and the detached mother cyst was pulled away through the puncture. The wound closed completely by sewing in the opposite surface of the wall by three layers of catgut. The hydatid membrane contained hooklets, but no daughter cyst. The wound healed rapidly.

TORSION OF GRAVID FIBROID UTERUS; ENUCLEATION; PREGNANCY NOT DISTURBED.

Thorn (Monats. f. Geburtsh. u. Gynäk.) operated on a woman, aged forty-one, who had been married for seven months and had never been pregnant. For three months the period had been absent, then symptoms of peritonitis set in. To the right of the uterus lay a hard, movable kidney-shaped

tumor. Ovarian cyst with twisted pedicle was diagnosed. At the operation a subserous and interstitial myoma was found in the anterior wall of the uterus; it had caused the uterus to be rotated one hundred and eighty degrees in the cervix. The tumor was enucleated, and its cavity sewn up with catgut close up to the fetal membranes. Another myoma of the size of a plum was enucleated from the fundus. The pregnancy went on till term. Thorn has observed two other cases of torsion of the uterus, one from the weight of a myoma, the other from the dragging of a short-pediced ovarian cyst.

RADICULAR NÆVUS.

P. Bolognini (*Pediatrics*) reports the case of an infant, born after a normal labor and of healthy parents, who showed at birth a vascular nævus affecting the right upper limb. The skin had a reddish-blue color, a peculiarity which was almost exactly limited to the territories supplied by the posterior roots of the fourth, fifth, sixth, seventh, and (in part) eighth cervical nerves; the lower anterior and all the posterior territory of the eighth were free from changes, as were also the territories of the first and second dorsal. Sensibility to touch, heat, and pain was normal, but the limb had larger measurements than that of the unaffected side, the temperature was higher, the arterial pressure was lower, the red blood corpuscles were more numerous and the hemoglobin less in amount, and the epidermic desquamation was greater. The nævus extended also on the right side of the chest, both anteriorly and posteriorly, affecting practically all surface supplied by the first and second dorsal nerves. The author ascribes the anomaly either to the embryonic period of development or to the fetal epoch, and hazards the suggestion that some infectious condition of the mother may have had an influence upon a small part of the ectoderm of the embryo or upon the nervous system of the fetus (fetal neuritis). At the same time it is admitted that no infection in the mother had been recognized.

THE TREATMENT OF INOPERABLE CARCINOMATA OF THE UTERUS.

Desider Stapler (*Wien. Med. Woch.*): The author puts forth his views with regard to the treatment of inoperable carcinomata, more particularly in opposition to the so-called palliative

operation of ligature of the uterine vessels advised by Jonescu. It is necessary, in the first place, to define when a carcinoma of the uterus becomes unfit for a radical operation. And to this end the author turns to the actual kind of growth present, and urges that it is the peculiar character of the growth and not the particular operation employed which influences the result when radical operations are made use of. He illustrates this with the familiar case of epithelioma of the cheek, some cases of which may exist a long time and yet be cured perhaps even by a thorough cauterization (Kaposi), and yet others, although widely removed at an early stage, rapidly recur and infect the glands.

As rough guides in practice, he regards the consistency of the growth and its rate of growth as all-important. Very hard, slow-growing cancers of the uterus offer a better prognosis, even when a large mass is present, than small, soft, rapidly-infiltrating kinds of growth which infect the lymphatics and glands early. This rough guide as to hard or soft growths can be made use of in diagnosing cancers of the fundus uteri by their resistance to the curette. Next turning to palliative operations, the author questions whether Jonescu's method is a justifiable operation. It is severe, because it entails opening the abdomen in order to ligature all the vessels of the uterus, and such an operation, without prospect of much amelioration in a wasted, cachectic patient, is a very serious matter. Again, does ligature of the uterine vessels produce atrophy of the uterus or the growth? Ligature of vessels either results in the formation of a collateral circulation or in gangrene. The former is commonly the result of ligaturing the vessels of the uterus, and such a collateral circulation is very rapidly established. Atrophy of an organ, the author contends, never results from ligature of its vessels. The adherents to the operation of ligature of the uterine arteries for fibro-myoma admit that such a procedure has a very small scope for application, and the operation is being given up. Something, however, can be done which does not submit the patient to so serious an operation as Jonescu's or Kustner's (complete closure of the vagina and the making of a recto-vaginal fistula, so that the foul discharges will drain into the rectum).

In the author's opinion, the best procedure is the thorough scraping away of the growth with a sharp curette, and then, after taking plenty of time to stop hemorrhage by hot injection or ice-water or pressure, to thoroughly cauterize the surface which remains with fuming nitric acid or chloride of zinc (thirty per cent. solution). The nitric acid is applied on small sticks wrapped in cotton-wool, only two or three drops of

nitric acid being taken up at a time. In the case of large ulcerating cavities, packing with wool pledgets, each with two or three drops of nitric acid on, may be employed, the vagina being protected by gauze packing; such a packing must be removed in from one to two days. Another method recommended is to scrape away all growth, then stop bleeding, and powder iodoform thickly over the surface; next to rub the surface with a stick of silver nitrate, making a paste with the iodoform. A small amount of nitric acid is developed in the nascent state from this paste, and has a cauterizing action. Granulations of a healthy character soon appear under the crust which the paste eventually forms. The last method of treatment is that of steam vaporization by means of Pincus' apparatus. The steam is applied through a specially constructed speculum, after scraping away the growth. One-half to one or two minutes is the time suitable for the continuance of the vaporization, and the temperature of the steam is about 105°-110° C. By any of these means the author claims that the discharges are lessened and disinfected, and in many instances recurrence does not take place for a long time, eighteen months, for instance, in one case mentioned.

THE FINGER BETTER THAN THE CURETTE IN ABORTION.

Budin and Lantos (*Gyn. and Obstet. Jour.*) prefer "curage," or the use of the finger, to curetting for the removal of the membranes in early labor. The finger has the great advantage of allowing the recognition of foreign bodies. Thus in one case it happened that a sponge tent had been used to produce abortion. Fever and hemorrhage set in, and medical aid was sought. While peeling off the membranes the finger detected the foreign body. A second touch interpreted its nature. Even after the membranes had been expressed by abdominal pressure it required two attempts with the finger to bring the piece of sponge away, owing to its physical characters. Pressure alone simply made it slip sideways. In a second case a laminaria tent had been introduced, slipped above the os internum. With the finger-tip the cervix was easily opened, and the tent was removed by means of a dressing forceps. The partially loosened oval cast was shelled out entire. In a third case, where spontaneous abortion had occurred, the decidua, already loose, was removed entire by aid of the finger. Thus there is a second advantage in using the finger, for the curette or forceps removes the membranes piecemeal, nor can the

obstetrician be sure that no fragments are left behind. When the tip of the forefinger is too short to reach the fundus, the middle finger may effect that object. The forefinger is, at the same time, bent under the anterior lip of the os, the ring and little finger being slipped behind the posterior lip. The left hand presses or steadies the uterus from the abdomen. The middle finger is specially fitted for detaching a placental polypus from near the fundus. There is no reason to believe that "curation" is more painful than curetting, and it is much less likely to do harm when the patient is under an anæsthetic.

CÆSAREAN SECTION FOR FIBROID; SUBSEQUENT HYDATID DISEASE.

Pershin (Vratch) operated on a woman, aged twenty-four, at the ninth month of pregnancy. A tumor growing from the posterior part of the cervix nearly filled the pelvic cavity at the fifth month; at the ninth the vagina was invaded. Cæsarean section was performed seven hours after the beginning of labor, and a live child, over 7 1-4 pounds, was delivered. The fibroma then began to diminish rapidly; within eight months after the operation it could not be detected by palpation. A year later a sausage-shaped abdominal tumor developed in the abdomen. It was movable and painless. It could be pushed down into the pelvic cavity and seemed to arise from the left appendages. A smaller tumor could be felt on the right of the uterus. Bilateral ovarian cyst was diagnosed. The patient refused operation. Fourteen months later she was seen again, she believed that she was pregnant; the period had ceased for eight months, and there was sickness. Lumbar pain was also present. An exploratory operation was undertaken. The suspected ovarian growths were hydatid cysts of the omentum and pelvis. The internal genitals were much atrophied. The great omentum and its cysts were removed, a large cyst in Douglas' pouch was enucleated. The patient recovered.

REMOVAL OF THE CANCEROUS UTERUS.

A. Funke (Münch. med. Woch.) discusses fully the methods of removing the uterus and adjacent parts for carcinoma and sarcoma, and shows that he has better results with a combined abdominal and vaginal operation, both as regards immediate results and the risks of recurrence. He publishes 19 cases (his

second series) in which he employed this procedure. In 1899 he operated on the first 9, losing 2 directly, and 2 from recurrence later; while of the remaining 10, operated on up to March, 1900, he lost 1 directly, but has not discovered recurrence in any. The technique of the operation is as follows: He first opens the abdomen, ligatures the ligamentum infund. pelv., divides it, thus laying the broad ligament open. The two portions he then pulls as far apart as possible, and divides the posterior one. He then frees the ureters and vessels, and removes as much of the cellular tissue as can be seen, together with the lymphatic glands. He next ties the uterine arteries at the level of the internal os, and dissects downwards until he comes to the horizontal portion. This he ties again, either high up or low down according to circumstances. He removes all glands that are still attached to the uterus, and then proceeds to reunite his peritoneum, and closes his abdominal wound. The patient is now placed in the lithotomy position, and he incises the vaginal vault, and opens the vesico-uterine fold, a proceeding which, he claims, is extremely easy, as the bladder is absolutely freed by the abdominal proceeding. After applying sponges on holders, he thoroughly examines the condition of the tissues, now exposed. According to the condition, he cuts away more or less of the peritoneum and other tissue at the floor of the pelvis. The vaginal wound is now completed, and the uterus and the adherent tissues delivered through the vaginal wound. He claims that by this operation the risk of septic infection is not greater than by a single abdominal or vaginal operation, and that it allows a very thorough clearing out of the infiltrated portions of the pelvic tissues.

THE OSMOTIC PRESSURES OF MATERNAL AND FETAL BLOOD.

Krönig and Füh (Monats. f. Geburtsh. u. Gyn.) discuss this subject. The fact that the interchange between the maternal and fetal blood is at least in part under the laws of osmosis gives this inquiry considerable interest, and as the experiments have been performed with great care, every precaution being taken to avoid error, and as the variations usually fall within the calculated limits of error of observation, we may consider the results obtained as fairly trustworthy. The test of isosmotic pressure used was equality of the freezing point, and the readings were accurate to 1-100 of a degree, and the variation in four observations usually within 1-200. Blood plasma, serum, and corpuscles have the same freezing point, and this

undergoes no variation from repeated freezing and thawing, or from keeping in a properly corked vessel. No difference is found between maternal and fetal blood at the end of the second stage of labor. The average from the investigation of twenty cases is 0.520. The fact that the fetal blood is richer in soda and poorer in potash salts suggests that the chorion does not act as a simple organic membrane.

FETUS RETAINED TWO YEARS IN THE UTERUS.

Landucci (Centralbl. f. Gyn.) relates the case of a woman aged thirty-one who was seized with pains and smart hemorrhage at the sixth month; but these symptoms ceased gradually, and the fetus remained in the uterine cavity for fully two years. During that period symptoms of pelvic inflammation appeared frequently, with vaginal discharge and diarrhea. The period was regular. A recto-uterine fistula developed and blood and bones were discharged. The uterus was of the normal size at the third month; it crepitated on pressure, and was fixed to the rectum by adhesions. The cervix had become strictured by caustics. Landucci split the cervix transversely, and opening the uterine cavity extracted the bones of a six-months' fetus with some difficulty. The bones were in part embedded in the uterine wall, and were completely denuded of soft structures. The utero-rectal fistula closed of itself within a short time after the operation, and ultimately cure was complete.

PREGNANCY AND DIABETES INSIPIDUS.

Chavane and Faure-Miller (L'Obstét.) observed this condition in a woman, aged twenty-five, pregnant for the third time. At sixteen years of age she suffered from nervous symptoms following too much head work, and passed over 25 pints of urine daily. When she married she was passing 8 1-2 pints daily. Then she became pregnant (1895), and passed enormous quantities of urine daily, sometimes over 34 pints. Thirst was distressing, and for a time the urine contained sugar. During the second pregnancy (1898) about 25 pints were passed daily. Labor was normal, and a fine female child, nearly 10 lbs. in weight, was delivered. During the third pregnancy, in 1900, the daily excretion nearly touched 30 pints. Neither sugar nor albumin were ever detected. At the

ninth month there was tenderness about the pelvic articulations, so the patient could not walk, the thirst was great, and the appetite abnormal. During the first stage of labor over 17 pints of urine were passed. The membranes were ruptured artificially. The child was delivered with some trouble; it weighed 10 1-2 lbs. Anuria occurred on the second day, the bladder remaining empty. Then thirst and polyuria set in again. From 20 pints daily it fell till by the twentieth day the amount was but 8 pints, at which figure it continued during convalescence.

ACUTE INVERSION OF THE UTERUS.

A. Fleischmann (Münch. med. Woch.) relates two cases of *inversio uteri*. The first took place in the Munich clinic. The patient was a primipara, aged twenty-three years, and delivery took place normally, the fetus lying in the L.O.A. position. The placenta did not follow, and the uterus was noted to become flaccid. In spite of massage, etc., hemorrhage took place during the next half of an hour. The clinical assistant, an experienced, qualified man, proceeded to express the placenta, using Credé's method, but found that the fundus suddenly disappeared from under his hand, and appeared inverted, with the placenta adherent outside the vulva. Fleischmann saw the patient a few minutes later, and after detaching the placenta succeeded in reducing the inversion and returning the uterus with much difficulty. He experienced considerable opposition on the part of a tightly contracted cervix. The patient was unconscious during the time the uterus was inverted, but very soon recovered, and went through the post-partum period uneventfully. The second case occurred in the practice of Becker. A midwife attended the patient in her fourth confinement, and the birth of the child was spontaneous. The placenta did not follow, so the midwife applied traction to the cord, and tore it off close to its placental insertion. There was considerable hemorrhage. Becker, on being called, found the patient pulseless and unconscious, and the uterus, with the placenta attached, lying outside the vulva. After detaching the placenta he reduced the inversion. The patient soon recovered consciousness, and the lying-in period passed normally. In discussing these cases the author points out that *inversio uteri* may be violent or spontaneous. The predisposing cause is atony of the uterus. Both cases he looks upon as violent varieties; in his own the exciting cause being the expressive force, and in Becker's case the traction on the cord. The unconsciousness he refers to collapse more than to the effect of

hemorrhage, seeing that both patients recovered very soon and suddenly after reduction. He states that, contrary to one's expectations, the puerperium is generally uneventful, and although the uterine mucosa has been exposed to the air, septic absorption does not usually take place. The best method of reduction in cases where the cervix is contracted is to dilate the cervix with three fingers of one hand in the vagina, while pressure is exerted by the palm of the other hand on the body of the uterus. He advises the removal of the placenta before reduction. After it is replaced the uterus should receive a hot douche of lysol, which will generally insure the contraction of the fundus.

NEPHRITIS GRAVIDARUM.

Gaucher and Sergent have investigated the clinical history in many cases of nephritis gravidarum (*Rev. de Méd.*). In many cases albuminuria seems to exist as a primary condition, and does not necessarily mean that nephritis is present. They are probably autotoxic in character. All cases, however, which show albuminuria are to be watched with suspicion, for the same antointoxication which produces albuminuria would seem capable, if prolonged and repeated, of causing actual disease of the kidneys. There seems to be a long series of forms intermediate between simple albuminuria and chronic Bright's disease. It would seem in very many cases that there is a strong tendency to spontaneous recovery, but, on the other hand, this condition may reveal indelible traces of the kidney lesion, which later, especially during the course of a subsequent pregnancy, developed into a nephritis. The writers quote Brault as stating that pregnancy essentially favors the development of nephritis, especially in chronic forms. Albuminuria appearing in a first pregnancy tends to disappear, in a second it remains longer, until in succeeding ones it becomes permanent, though at the same time many cases of repeated and marked albuminuria sometimes recover completely. At times in many cases there is transitory general œdema, with alteration in the specific gravity and in the appearance of casts. Such cases are generally met with in primiparæ, and these signs generally appear towards the end of utero-gestation. In those cases which are destined to become permanently established the heart shows hypertrophy with bruit de galop. Such cases develop all the symptoms and signs of marked interstitial nephritis, while others show considerable œdema and that series of signs and symptoms which we are accustomed to associate with large white kidney. It can be stated, therefore,

that nephritis gravidarum does not assume any one particular form of kidney lesion. In point of fact, post-mortem examination has revealed several marked cases of granular contracted kidney. The prevailing variety seems to be the sclerotic. The writers do not consider that the explanation of nephritis gravidarum is as yet forthcoming. To call it autointoxic is correct, so far as it goes, but the form in which it occurs has still to be elucidated.

ATMOKAUSIS, OR VAPORIZATION OF THE UTERUS.

Stoeckel (Therap. Monats.) considers that the application of steam to the uterine mucous membrane is rational, but that the method is in danger of falling into disrepute, owing to its indiscriminate employment. The best apparatus is probably that devised by Pincus, though the india-rubber tube is so short that, when in use, it is necessary to keep moving the boiler. Before applying the steam cautery the cervical canal should be dilated; by dilators if hemorrhage is present, by laminaria tents if hemorrhage has temporarily ceased. In the latter case an anæsthetic is unnecessary. For hemorrhage due to fibroids, polypi, incomplete abortion, and advanced endometritis, atmokausis should be avoided. In one case two intramural fibroid tumors at the fundus were converted into more or less submucous fibroids, owing to the violent muscular contractions caused by the steam. After several applications of steam at 115° C., the last of one minute and a half duration, without arrest of the hemorrhage, the uterus was removed. In some other cases in which steam was applied experimentally, immediately before hysterectomy it was found that the unevenness of the mucous membrane caused by the projecting myomata had prevented uniform cauterization. If any islets of mucous membrane remain uncauterized, hemorrhage continues. For incomplete abortion the steam cautery seems superfluous. Stoeckel employed it after digital removal and curetting in some cases, and, though recovery was uninterrupted, no better results were obtained than with evacuation of and packing the uterine cavity with gauze. To apply steam and await spontaneous extrusion of the placental remnants is bad practice. Advanced endometritis is a contraindication, since the altered uterine walls usually contract badly, and vigorous contraction is necessary for successful and permanent hemostasis. It is very doubtful whether uterine gonorrhea should be treated by atmokausis. Its action is probably too

superficial to arrest a chronic gonorrhea, unless the application is made for as long as one and a half to two and a half minutes, and then there is danger of obliteration of the uterine cavity. It is also very difficult to exclude the presence of diseased appendages, which are an absolute contraindication to the method. Atmokausis, on the other hand, acts excellently in uncomplicated menorrhagia and metrorrhagia, especially in that occurring at the menopause, at a time when the production of obliteration of the uterus is immaterial. With younger women, each application of steam at 115° C. should not exceed ten to thirty seconds. It may be necessary to repeat the process several times. The steam cautery is probably the most certain method of arresting uterine hemorrhage of hemophilic origin. A girl began to menstruate at fourteen. The hemorrhage continued for six weeks, and produced profound anæmia and exhaustion. The pulse was 140, and almost imperceptible. No drugs had any effect. There was a large subcutaneous hemorrhage in the hypogastric region, and a history of previous hemorrhages was obtained. Chloroform was given, the os was dilated, and steam at 115° C. was applied for two minutes and a half. The uterus contracted firmly, and the hemorrhage ceased definitely. Recovery was uninterrupted, and there had been no uterine hemorrhage four months later. The uterine cavity was possibly obliterated, but without atmokausis death would have been inevitable.

DYSTOCIA FROM HYDATID DISEASE OF PELVIS.

Boissard and Coudert (L'Obstét.) report a case of operation for hydatid cysts of the liver. Twice afterwards labor occurred under their observation, and on both occasions intervention was needed. At the first labor, when they did not attend, the forceps was applied, and the child delivered at the eighth month. At the second, on taking a pain, an oblong mass quite unconnected with the uterus was found blocking the pelvic cavity. The forceps could not be applied, the tumor came down during the attempt, the posterior wall of the vagina followed it. The posterior fornix was broken down, the tumor collapsed, and the child was delivered. Next day, on exploration, a painless swelling was detected in the left iliac fossa, it reached the anterior inferior spine. At the third labor, the second under the observation of Boissard and Coudert, Douglas' pouch was found filled by a tumor, diagnosed as hydatid on the strength of the previous history. The fetus

could not enter the pelvic cavity, so the tumor was aspirated; then an incision was made in the posterior vaginal wall, the cyst laid open with a bistoury, and about half a pint of pus with daughter cysts came away. The child was then delivered asphyxiated, but it revived and lived for forty-eight hours. The main wall of the cyst was easily enucleated; as there was a big cavity left afterwards, its margins were fixed with catgut to the edges of the incision in the posterior vaginal wall.

ATHYREOSIS IN CHILDREN.

Quincke, *Deutsche Med. Wochenschrift*: Two cases are described to sustain his assertions that we are still far from knowing all the variations of the clinical picture induced by defective and disturbed functioning of the thyroid gland. He thinks this condition should be classed with uræmia and diabetes as an autointoxication, possibly multiple. In puzzling cases of tardy development, mental or physical, the possibility of an affection of the thyroid gland should not be overlooked, even when the typical symptoms of cretinism and myxœdema are absent. These rudimentary and abortive cases are not only the most interesting, but they are the most amenable to thyroid treatment. In one of the cases described the growth was normal, although the other symptoms indicated sporadic cretinism, and the autopsy showed that the thyroid gland, which had been the size of a bean during the first year of life, had completely disappeared by the fourth year. In the second case the cretinism commenced to develop insidiously in an apparently normal child fifteen months old. A peculiar feature of this case was that all the teeth but two dropped out. The symptoms suggested an organic cerebral lesion, but a few months of thyroid treatment cured the condition completely. He suggests the term "athyreosis subacuta" for these rudimentary cases.

THE CIRCULATORY APPARATUS IN PREGNANCY.

E. Bonomi, *Annali di Ostetricia e Ginecologia*, has investigated anew the question of cardiac hypertrophy in pregnancy. From clinical observations upon twenty-eight pregnant women and from the examination of various animals (cow, sheep, rabbit, cat, guinea-pig) in a pregnant and unimpregnated state, the conclusion is drawn that there occurs a physi-

ological and transitory hypertrophy of the cardiac muscular fibers. Observations of the blood of both hospital and private patients showed that pregnancy induced a state of slight *anæmia*, so slight as not usually to produce morbid symptoms; this tended to disappear with the establishment of lactation. The cardiac hypertrophy is to be accounted for by the increase in the mass of blood and in the abdominal pressure, along with the addition of a new zone of circulation and the irritant action of excrete fetal products circulating in the maternal blood.

THE OVARY IN MOLLITIES OSSIIUM.

Scharfe, *Centralbl. f. Gynäk.*, has carefully examined three pairs of ovaries removed from patients with mollities. Two were extirpated by vaginal hysterectomy on subjects not pregnant, the third were removed at a Porro's operation at term. The evidence was entirely negative, nor was there any distinction between the pair removed from a pregnant subject and the others. So far the effect of castration does not seem to depend on the removal of any pathological conditions resident in the ovary.

DANGER OF A PYOSALPINX.

Toth, *Centralbl. f. Gynäk.*, operated on a woman, aged forty-three, amputating the vaginal portion of the cervix for a fibroid as big as an apple in the anterior lip. The wound was sutured. On the sixth day the temperature rose to 101° ; the wound was examined; then the temperature increased to 105° , with a rigor. Next morning it fell to 99° ; the sutures were removed; the wound was sloughy at several points. Peritonitis set in, and death occurred on the eleventh day. At the necropsy purulent peritonitis was discovered, and buried in old adhesions a pyosalpinx lay on each side of the uterus; there was a circumscribed cavity full of pus outside the right pyosalpinx, in the adhesions, and this was undoubtedly the starting point of the diffused suppurative peritonitis. But there was no communication between the field of operation and the pyosalpinx; the wound and the parametrium were alike free from necrotic processes. Toth suspects that during the operation or the examination when fever set in the tubes may have been stretched and detached from their adhesions, so that the suppurative process was set up again. Tunkai related a similar case. Tauffer, in the discussion at Buda Pesth on these

two cases, remarked that absolutely asepsis is impossible in a vaginal operation, whilst in Toth's cases there were two suppurating foci. He had seen sloughing of vaginal wounds in a clinic where soap and soft brushes were applied to the parts for several days before operation, then sublimate solutions thrown up, and lastly iodoform packed into the vagina. Doktor remarked that we lay too great stress on killing bacteria before the operation and too little on careful attention to the wound afterward.

PUERPERAL SEPSIS.

Draghiescu, *Annales de Gyn. et d'Obst.*: The method of treating puerperal sepsis at Bucharest is by systematic irrigation of the uterus whenever, after delivery, the patient has a chill, temperature of 38 C., and pulse 100. The uterus is then packed with iodoform gauze moistened with a 5 to 10 per cent. solution of phenic acid. The gauze slightly distends the organ and by direct contact cauterizes the surface and promotes uterine contractions. It is renewed twice in twenty-four hours. The patient recovers more rapidly with this than with any other method of treatment, and affections of the adnexa, etc., and phlebitis are much less frequent. The mortality has ranged from .05 to .22 per cent. of all accouchements since this treatment was instituted in 1895. There were 3 deaths, or .13 per cent. of 2047 deliveries in 1899.

PREGNANCY AND ALEXANDER'S OPERATION.

Stratz, *Centralbl. f. Gynäk.*, reports a case where a patient under his care had undergone Alexander's operation four years previously. She was thirty-six and had been seven times pregnant. For a few years she suffered from gallstone colic. Recently she had been at sea for a month and owing to uncontrollable vomiting had to be fed with nutrient enemata. Gallstone colic further troubled her during the voyage. The period had last been seen on July 4, 1899. On March 6, 1900, she was admitted into hospital at the end of the eighth month of pregnancy. There was icterus, pulse 72, temperature subnormal. The right round ligament was very tense, thickened, and painful. The vertex presented in the first position. Morphine was given, then the violent colic which distressed her ceased, and a large gallstone was detected

in a motion. But the vomiting which accompanied the colic continued unabated, and, as the patient was much reduced, labor was induced on March 14. The os was easily dilated with the finger and a bullet forceps. Braxton Hicks' version was then practiced, and one foot brought down with the bullet forceps. Directly the waters broke the tendency to vomit ceased, but solid food was rejected. The child, a female, was very sickly and asphyxiated at birth. It bled from a wound made by the forceps. Two hours later manual extraction of the placenta was effected; it set up nausea. Next day the patient could keep down fluid nourishment and oysters. Thenceforth she did well and never vomited. The child died on the second day. Stratz feels sure that the trouble was due to Alexander's operation, though performed in this case by a great authority. On the fourteenth day of the puerperium a hematoma could still be detected in the right round ligament. Stratz attended at the labor of another case where the same operation had been done, and detected a bilateral inguinal hernia.

PUERPERAL ECLAMPSIA.

Porak (*Ibid.*). According to Porak, eclampsia is an auto-intoxication of intestinal origin. He therefore treats it by copious flushing of the bowels, using 30 to 50 liters of tepid, 7 per 1000 salt solution under weak pressure. This irrigation brings at last a discharge of pure bile, and then he desists. Infusion into the blood is also an important aid. He considers the convulsions of reflex origin, and consequently forbids all food or drinks by the stomach, and, if obstetrical intervention is necessary, abolishes the reflexes by profound narcosis. Since he has been treating eclampsia on these principles he has had only five die out of forty-seven cases, and two of these deaths could not be attributed to the eclampsia.

TREATMENT OF DAMAGED URETER IN ABDOMINAL SECTION.

Fenomenoff, *La Gynéc.*, describes a very rough-and-ready way of dealing with a case of badly damaged ureter, justified at least by success in this particular instance. He removed a pair of strongly adherent broad ligament cysts. He feared that they were septic from suppuration, and therefore dissected very freely around their outer walls. In so doing he acci-

dentially cut away a considerable segment of the right ureter. Hence neither suture of the two ends, nor even implantation of the proximal end into the bladder was possible. Fenomenoff, therefore, drew the ureter up out of the retro-peritoneal space, applied two ligatures as high up as possible, and then reduced the damaged duct. The patient made a complete recovery, without any renal symptoms save during the first week, when she felt lumbar pain, and the excretion of urine was below the normal. The corresponding kidney was somewhat enlarged. The patient was well in five weeks. Seven months later the patient reported that she still felt the pains, but there was no trouble with the urine. Experiments on animals have shown that sudden and permanent obstruction of the ureter causes atrophy of the kidney; this change must have occurred, Fenomenoff believes, in his own case.

SPLEEN IN FEMALE PELVIS.

Gouraud, Bull. et Mém. de la Soc. Anat. de Paris, describes this important anomaly, which he detected at the necropsy on a woman, aged sixty, whose death was due to cancer of the pylorus. The long diameter of the spleen was horizontal, and it lay over the bladder and uterus. Its left side touched the pelvic wall, from which it was separated on the right by the sigmoid flexure, which turned to the right and covered the spleen. The peritoneum invested the spleen entirely, save superiorly to the left, where the organ adhered to the colon at a point where it received its vessels. The pedicle of the spleen was entirely retroperitoneal, and consisted of a dilated, tortuous splenic artery. The twists were produced by two fibrous cords, both vascular, probably containing the vasa brevia. One cord, retroperitoneal, passed toward the cardiac end of the stomach, the other, invested with serous membrane, passed to the inferior extremity of the kidney. There was no splenic vein. The pedicle ended behind the tail of the pancreas, which organ lay very obliquely, its tail being almost vertical. Along the posterior border of the pancreas ran a small vein in the position of the splenic and a tributary of the vena porta, but it arose at the tail of the pancreas, and had no connection with the spleen or its pedicle. The nature of the pedicle seemed to imply that the displacement of the spleen was congenital, but the twisting of the splenic artery looked as though the organ had descended from its original position; if so, however, the prolapse must have been very early.

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SOME OBSERVATIONS CONCERNING THE INTERPRETATION AND SIGNIFICANCE OF HEART MURMURS IN INFANTS AND CHILDREN.*

BY EDWARD R. SNADER, M. D.

The diagnosis of heart affections in infants and children is justly regarded as more difficult than in adults, first, on account of the greater rapidity of the action of the heart in children; second, on account of the inability to secure at will the suspension of respiration; third, because of the greater natural intensity of the sounds of respiration obscuring and rendering more difficult of recognition the presence or absence of adventitious heart sounds; fourth, on account of the restlessness of the examined subject; and, fifth, because we do not know so much about the cardiac affections as they occur in children as we do about the same maladies as they occur in "children of a larger growth." All these difficulties in the way of diagnosis, however, can usually be overcome by a little tact and more patience, and especially by the reservation of

* Section in *Pedology*, A. I. H., 1901.

an opinion as to the exact nature of an affection until a number of examinations under varying circumstances have been made. This precaution as to the expression of a definite view as to the character of the case only applies to a certain number and kind of patients, for, in many instances, the diagnosis is quite clear and conclusive after one thorough exploration.

The discovery of a murmur at one of the cardiac orifices in the midst of an intense respiratory murmur can only be accomplished in some instances by most careful attention to the rhythm of the heart and a mental refusal to take cognizance of the sounds produced by the respiratory movements, an achievement that is rather easily accomplished after a little experience. When a murmur is discovered, its location is the next point of importance to decide. When its location is satisfactorily settled, the next question requiring solution is whether the murmur represents obstruction or regurgitation, or whether it is of blood origin, for hæmic murmurs in connection with anæmia are even more prone to be developed in the very young than in adults. Having decided that the murmur is an organic one, and that it involves regurgitation or obstruction, the practical point to come to a conclusion about is as to whether the murmur represents a pre-existing valvular lesion; a present and active endocarditis; a congenital defect; a dilatation, involving perhaps only temporary incompetence; or stenosis; and, ever and always, no matter what the nature of the lesion,—if one be present,—the amount of damage it is doing, or whether it be innocuous so far as the production of symptoms or states is concerned.

Dilatation of the heart, according to my judgment and experience, occurs very frequently and transiently in the various maladies of infancy and childhood. The child's heart is capable of a greater degree of adaptability to stress of circumstances than the adult organ. Dilatation occurs notably in diphtheria, scarlatina, pertussis, measles, influenza, in bronchitis and pneumonia, and, practically, in any severe malady in which the circulation is put under stress by either the circulation of toxins in the blood or a greatly elevated temperature and its sequences. The heart, too, is under special stress, not necessarily with dilatation of the heart, but with

or without it, in all the diarrheal diseases. The influence of the rheumatic poison is too obvious, and needs no special mention in this connection. Every murmur (or murmurs), then, discovered in children is not necessarily evidence that the patient has congenital heart disease or is suffering from an acute endocarditis. Such a conclusion, indeed, would be far from the truth. Indeed, if even most of these murmurs were of recent endocardial origin,—that is, representatives of endocarditis,—I should be most happy to consider endocarditis in children to be a very curable disease, for many of these murmurs rapidly disappear with a change for the better in the disease from which the patient is suffering, or improvement in the heart's action. Percussion is most to be relied upon in discovering the existence of enlargement of the heart. If by this method enlargement is discovered, the enlargement is found not to be due to hypertrophy or pericarditis, with effusion by the changes in the character of the heart sounds that occur when either of these conditions is present. In cases of dilatation the limits of abnormal dullness change greatly within comparatively short periods of time, and this fact is of extreme value in determining that the enlargement is not due to an old lesion, and also, in a less degree, probably, that the murmur is not due to an endocarditis; for, while enlargement of the heart occurs as a secondary sequence of the endocardial inflammation, the enlargement is an advancing one—that is, it requires a considerable period of time before coming to a relative standstill; whereas the enlargement of dilatation is decidedly more fluctuating in its progress, and some examinations may show little change from the outlines of the cardiac dullness.

The murmurs, too, of an active endocarditis are very apt to grow greater in their intensity (up to a certain point) with succeeding examinations, while those due to dilatation are exceedingly fluctuating in their degree of loudness. The symptoms accompanying these cardiac murmurs are never distinctive of the character of the lesion, and are, in fact, frequently absent or obscured by the symptoms of the malady from which the patient is suffering, and we are therefore practically, in the vast majority of instances, shut up to the dis-

coveries we can make by the presence or absence of physical signs in making our diagnosis.

The congenital or old lesions, if the patient be not a babe in arms, will show a compensatory hypertrophy and the other well-known modifications in the character of the heart sounds, so that the question of an old or congenital lesion is usually easily disposed of, leaving practically the question to be settled as between acute endocarditis and dilatation, provided, of course, that the murmur of anæmia has been excluded. Cases occur sometimes in which it is an exceedingly difficult matter to determine the existence of anæmia without a microscopical examination of the blood; but, where anæmia is manifest, its presence (but not its degree) can be assumed as a fact for the purpose of utilizing it in an analysis of all the factors in the case before a positive diagnostic conclusion is reached. It must be remembered, however, that anæmia is frequently caused by a heart lesion, and we must not let this point be lost sight of, because an anæmic condition of the blood is capable of inducing endocardial murmurs. If anæmia alone produces the heart murmur, such murmur is unaccompanied by enlargement, unless the heart has been previously enlarged. It is a favorite assertion with some authorities that anæmic murmurs are always basic in origin; but this rule is by no means invariable, and, while entitled to some little weight in the diagnosis, a murmur should not be considered hæmic, and, consequently inorganic, simply because it is heard in greatest intensity at the base of the heart, any more than the conclusion should be drawn that because the murmur is loudest at the mitral area it is of necessity an organic and not an hæmic one. Such a decision would surely be snap judgment, and might satisfy the demands of a book diagnostician, but certainly not the clinician. The absence of diseases ordinarily considered capable of originating an endocarditis is a point of no mean importance in the diagnosis, although we know that anæmia can coexist with almost any disease but plethora.

Another factor that sometimes comes into play is the decision of the question as to whether the discovered co-existing anæmia has anything whatever to do with the dis-

covered heart murmur, for all anæmias are not accompanied by cardiac adventitious sounds. It would not be necessary to make this statement prominent were it not for the fact that it is a most common mental attribute in the physician's mind to place the most favorable possible construction on the factors concerned in the diagnosis, rather than the gloomiest and sometimes the correct view, and hence, anæmia, by its mere presence, may bias the unwary into an incomplete investigation, or, at least, to place undue weight on the blood state and discount the physical signs that, without such a bias toward a favorable view, might be differently interpreted if anæmia were not a symptom in the case. If the heart be apparently otherwise free from disease, the absence of enlargement, more especially in chronic diseases, is the diagnostic feature upon which the greatest reliance can be placed in differentiating the inorganic from the organic murmur. An inorganic murmur, then, being dismissed, in a given case, the differentiation will mainly rest between an inflammatory affection of the lining of the heart or dilatation. We are not now considering the exocardial or pericardial murmurs, but only those having their origin within the interior of the heart or at the orifices of the great vessels arising from the cardiac apparatus. It is a well-known clinical fact that an inflammation of the lining membrane of the heart can occur, and does occur, clinically, without the usual symptomatic phenomena accompanying inflammation. In fact, we know that grave valve mischief can be inaugurated and completed without there having been present any symptoms whatever calling specific attention to the heart as a possible symptom-producing factor. There is hardly any disease known that is clinically so variable in its symptomatic manifestations as endocarditis.

The symptoms vary from none at all to a transitory, evanescent, perhaps unnoticed, alteration in the rhythm of the heart's movements up to exceedingly grave local and systemic manifestations. With this knowledge of the variability in the clinical symptomatic features of endocarditis, we naturally place the greatest reliance upon the physical signs as indicating the presence of lesions within the heart, and

utilize symptoms, if they happen to be present, as confirming the diagnosis or as rightly interpreting the physical signs. We know very well indeed some of the diseases which are likely to be complicated by an attack of endocarditis, but we by no means know them all. Rheumatism, scarlatina, measles, typhoid fever, whooping cough, pneumonia, and pleurisy are liable to induce an inflammation of the heart's lining membrane in about the degree in which I have mentioned them. In this category we should place tonsilitis; but we don't yet know accurately where to place this malady in the percentage ratio as to its liability to induce endocarditis. There is, however, a very close relationship between endocarditis and tonsillar affection, closer even than is realized by those who are making studies of the question of association, and are trying to account for the frequency with which endocarditis is found with tonsilitis upon the theory that the inflammation of the tonsils is of rheumatic origin. It is not necessary to prove the rheumatic nature of tonsilitis in order to make attacks of tonsilitis and coexisting endocarditis plausible, for it is beginning to dawn upon the minds of the medical profession that endocardial inflammation is an exceedingly common and little understood affection. Indeed, endocarditis is a very common affection, if it be sought for. A much broader and safer view to take of endocarditis is that all diseases capable of contaminating the blood stream, either by the production of toxins, alteration of the composition, or retention of waste material, are also capable, under certain circumstances not yet well understood, of inducing attacks of inflammation of the lining of the heart. I have certainly found endocarditis in diseases which I formerly did not believe capable of inducing that malady. Therefore, the proposition that any disease in which serious blood contamination, by either direct or indirect route, can be produced can induce attacks of endocardial inflammation seems to me an exceedingly reasonable and tenable one. If this view be accepted, I am sure we will investigate the hearts of all the little ones under charge with greater care than formerly, and will often be rewarded by the discovery of a sneaking endocarditis, or one that is giving rise to alterations in the symptomatic picture of the

disease under treatment that reveals an unexpected source for cardiac symptoms. The practical value of this discovery cannot be overestimated, for we can do much for these cases, not only in the immediate present, but are also better able to handle the patient in subsequent diseases. There is but one grand distinguishing feature that is of supreme value in the detection and diagnosis of endocarditis, and that is that the discovered murmur (or murmurs) grows steadily more intense with each succeeding examination (provided the heart is not growing either weaker or becoming dilated with each succeeding examination). This increase in intensity goes on for some time, if the progress of the case is not toward a speedy lethal issue, until it reaches a certain degree, which degree is usually fairly well sustained while the patient is under observation for the malady of which the endocarditis is a complication. After the patient is up and about, sometimes even weeks or months afterward, you may discover a much more intense murmur than when the patient was confined to bed.

Little stress should be placed upon the presence or absence of hypertrophy or dilatation of the heart as indicating endocarditis,—that is, during the activity of the disease of which the endocarditis is a complication,—for the reason that it takes a considerable period of time to bring about hypertrophy unless the illness from which the patient suffers is an unduly prolonged one; and therefore the hypertrophy which afterward follows will not be among the diagnostic features upon which we can rely to diagnose the presence of an active endocarditis. If dilatation ensue, rather than hypertrophy, the practical importance of determining the existence of a simple endocarditis is very small indeed; for the dangerous lesion is the dilatation, whether it occur with or without endocarditis; and it will be the dilatation that will require the greatest therapeutic attention, even if the dilatation be secondary to the endocardial inflammation, for a heart that dilates under such circumstances does so, not so much as the result of the endocarditis as it does as the result of the stress put upon the heart by the malady that induced the endocarditis, and hence for the time being, at least, the dila-

tation is the important factor. Practically, under such circumstances, it is not important to determine whether the dilatation is secondary to the endocarditis or not, but it is rather to determine the existence of the dilatation; for if the child recover from the dilatation and the disease of which it is an accompaniment, the evidence of such endocarditis will be easily available and unquestioned later in the disease or after it has been recovered from. Of course, what I am now saying does not apply to the so-called "ulcerative endocarditis," a very malign malady, and one that, as an extremely rare event, may occur in children; but if so, the symptomatic phenomena are so marked that the mere question of enlargement is of no moment whatever in the differentiation. The case is perfectly clear without it. If the heart be not enlarged to compensate for the valve defect, there will not be available for diagnostic purposes the modifications in the heart sounds that are directly dependent upon the enlargement for their production. In point of fact, if these modifications of the heart sounds and enlargement of the heart be ascertained, they point, not to the first stage of an acute endocarditis, but rather to an old lesion, acquired in a previous illness, or possibly to a well-advanced subacute lesion. Irregularity of rhythm is of some value, early, and, accompanying a "blurred" heart sound, as found in the beginning of an acute endocarditis, the murmur growing out of the blurring and increasing gradually in intensity, is the cardinal feature that will assist in the diagnosis of endocarditis.

The congenital lesions of the heart—at least I may say those affecting the valves and orifices and the many deficiencies in the septa, and obliteration and transposition of vessels—are so varied that one would naturally expect an abundance of characteristic physical signs; but practically such is not the state of affairs. Almost all these deformities are represented by a systolic murmur, heard best at the base. At least it is seldom possible to obtain other decisive evidence than this to diagnose the difficulty with positiveness, and hence the discrimination of the particular form of deformity is most frequently a mere matter of guessing. The systolic murmur is heard near the base on the left side, just below or

at the pulmonary area, and is sometimes diffused over the greater portion of the chest. This first sound murmur of the congenitally diseased heart is generally a very loud one; and in point of fact the marked intensity of the murmur, as mentally compared with those heard in children's chests ordinarily, is entitled to some weight in the diagnosis, although it is a factor by no means positive in its significance. Nevertheless, a very loud basic murmur accompanied by great hypertrophy, particularly of the right ventricle, and sometimes of the right auricle, is good evidence of the existence of a congenital heart lesion.

This same set of physical signs, except that the left ventricle would be predominantly enlarged, and the murmur heard perhaps with greater intensity to the right of the sternum in the aortic area, can be found in a case of marked stenosis of the aortic orifice due to an acquired lesion; but if the child be very young (although hypertrophy does take place in children more speedily than in the adult), the changes of great hypertrophy occurring consecutively to an acquired lesion of the aortic opening are relatively exceedingly small, and the history of the case may assist materially in coming to a conclusion. Cyanosis is a marked symptom in the vast majority of congenital lesions, but it is not invariable, and, in some instances at least, is measurably dependent upon the character and extent of the deformity. Cyanosis, with clubbing of the fingers and a persistence of the cyanosis to a greater or less degree, with slight variations in its intensity, almost certainly points to a congenital anatomical defect, while the cyanosis due to dilatation secondary to a valvular defect is more gradual in its onset and development, more remedial temporarily to treatment, and is a matter of history as to the time of its origin. The congenitally defective heart is also more likely than the acquired lesion to betray very early the systemic and local developmental faults dependent upon an embarrassed circulation. We are now face to face with the murmur (or murmurs) of acute dilatation. I do not think it more than necessary to suggest that it is quite possible for murmurs to occur as the result of dilatation of the heart. Easily appreciated anatomical and acoustic reasons can

be advanced in support of such a possibility, nay probability, that dilatation of the heart, and consequently of its orifices, and a removal of the valves from their normal bases of support, can give rise to cardiac murmurs. Certain it is that in adults murmurs arise in the course of dilatation of the heart and disappear when the dilatation is measurably relieved, or when the heart is acting more strongly than is its wont, or is under the influence of a powerful heart whip. Too often has the post-mortem revealed that the cardiac murmurs we heard during life were dependent upon dilatation of the heart, and not to any anatomical defect in the valves or openings—too often, to be ignored on merely theoretical grounds.

The murmurs of dilatation are to be separated from those due to blood states, the endocardites, and from the congenital heart lesions, and this differentiation is to be effected by the absence of their several diagnostic features. In point of fact, a murmur that is not an anæmic one, not a congenital one, and one due to an endocarditis or to an aneurism (the rarest possible lesion in the very young), must be due to dilatation, in the present state of our knowledge. The murmurs due to dilatation are more variable in intensity than those of endocarditis or the other affections we have just named, and therefore the alterations in the character of the first sound, and even in the second, are entitled to new significance. If the first sound loses its booming, muscular quality, there is present in childhood either fatty degeneration, or myocarditis, or dilatation.

For practical purposes all the degenerations that take place in the heart muscle in childhood may be put in the same category as myocarditis; for, while these degenerations are often diagnosed, as witness, for instance, the myocarditis that occurs in connection with diphtheria, typhoid fever, malignant scarlatina, and even la grippe, they are diagnosed almost solely from the fact that the first sound is weakened and the second lessened in loudness or accentuated (dependent upon the extent of the heart's muscular power), and that these modifications in the heart sounds are associated with diseases capable of inducing the degeneration or myocarditis. While murmurs may exceptionally be present, they are exceedingly rare, and

this point may be of some importance in differentiation from dilatation in some cases. Besides, the dilatation of the heart can often be diagnosed very early in a given case of illness,—often long before severe symptoms of cardiac distress have appeared,—while in the case of myocardites or the degenerations the evidences of specific heart weakness are often speedily declared. And, too, in the degenerations of myocarditis the heart is not enlarged, or if so, it does not change in volume, as shown by percussion, as does the simple dilatation. Therefore, evidence of enlargement favors the diagnosis of dilatation, if anæmic, endocarditic, and congenital murmurs be excluded.

In myocarditis and in degenerations an approximate diagnosis, by the known association of the altered heart sounds with the disease that gave rise to the inflammation or degeneration, and the absence of enlargement, and possibly absence of murmur, is easily made. Even the myocardites and the degenerations may exceptionally give rise to murmurs, as intimated before, but the changing volume of the heart is a point in favor of dilatation. In those cases of dilatation without murmur, the enlargement settles the diagnosis. It is therefore a reasonable diagnosis of dilatation when we find an enlarged heart, more or less constantly changing its volume (which it would not do if the enlargement were due to hypertrophy and not to dilatation), with the heart sounds weakened so far as the full development of the muscular element of the first sound is concerned, and an accentuation of the second sound, with or without murmurs, when found in connection with any disease or condition capable of placing the heart under stress, either by reason of its special pathology, the accompanying fever, or of toxins circulating in the blood, or some of the diathetic or cachetic states found in a given case, is ample evidence upon which to base a diagnosis of a dilated heart. This is true, whether there be present murmurs or not, as I have intimated; but I am chiefly concerned at present with dilatation with murmurs, for I am sure that these murmurs are often interpreted to mean an inflammation of the lining membrane of the heart, and this wrong interpretation leads to further error in regard to therapeutic measures to be employed or not to be employed, for seldom do we vigorously

interfere in an effort to cure endocarditis. We know it is rare for simple acute endocarditis to end fatally. The correct interpretation of the character and significance of these murmurs is therefore not a matter of indifference; and both their recognition and appreciation of their significance is imperative to the conscientious and thorough physician. If I have succeeded in impressing the value of these little points in the understanding of cardiac murmurs as they occur in early life, and the importance of the recognition of dilatation, and its very frequent occurrence in infancy and childhood, and its demand often for active therapeutic interference, the mission of my paper will have been fulfilled.



CONSERVATISM IN GYNECOLOGY—WHEN? *

BY WILFRED E. FRALICK, M. D.

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Not so many years ago the peritoneum was looked upon as forbidden ground. The conditions facing our predecessors, surgically speaking, were mainly those of grosser pathology, or larger dimensions, which, perforce, had to be dealt with by abdominal section. The pioneers in this work manifested courage little less than heroic. When we consider the disadvantage under which they labored we marvel at their achievements. No anæsthetic to lull their patients to sleep. Their technique, if such it may be termed, was crude; asepsis they disregarded, and antisepsics were unknown to them. Their mortality was appalling. Withal, it is to these masters we turn with admiration and reverence, and submit our eternal gratitude in behalf of human kind. Not to honor those teachers would discredit our intellect. But did we not step outside their smooth and well-beaten paths when our intelligence conceives some thought not ripened by experiment and experience, we would be disloyal to our own conscience. Search and research are the bywords of every department of science. Progress is not less a necessity and obligation of to-day than it was when our own great Hahnemann discovered and gave to the world the grand law of similia. It would seem, perhaps, from what I have said that I had wandered from the road of easy-going into the byways; that I had lifted the veil from that never-ending source of doubt, of suffering, and of expectancy; that I had solved the phenomena of those secret recesses of the female adnexa of which we talk, and for which we do so much, and from which springs so much misery, pain, and death.

Careful as have been my observations, faithfully as I have endeavored to solve some of their intricacies, pathological and physiological, many of the mysteries of these organs still remain unrevealed. While my results in the main have been

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singularly gratifying, I have at times been sorely disappointed. I submit this paper not alone as an auditor's address, but to invite your criticism that I may share with you your experiences in these perplexing troubles which entail so much suffering. Our first duty is to prevent rather than to alleviate or cure. Too often is a diagnosis made from subjective symptoms alone. Too often are secondary conditions made a paramount issue. It is then to primary conditions I would ask your attention for a few moments. Contrast, if you will, the dram of whisky to the inebriate, the catarrhal and strictured appendix or tube to gangrene and a pelvis filled with pus; a malposed uterus or ovary and their defective supports, with their multiform phenomena of distressing symptoms. Examine your girl babies as carefully as you do your boys, and a solution of marasmus, convulsions, and what not might frequently be found. Prenatal impressions and congenital defects should not escape our observation. On the proper circulation of the blood depends the health, not only of the organ, but the entire organism.

Irritation, whether congenital traumatic, infection or otherwise alters the blood current and demands, if possible, immediate removal. Whether this is to be done by a careful physician or a conscientious surgeon, it matter not. Conservatism employs every means to ascertain the origin and nature of any lesion, be it orificial or central, microscopic or macroscopic; be it an adherent clitoris, a papilla, pelvic abscess, or a tumor. Conservatism conserves only when it adapts its methods and technique to the cases as they arise. There should be no specific pre-arrangement of plans. An organ, be it the uterus, ovary, or tube, should not be prematurely condemned to die simply because a portion may be ill.

In the earlier years of womanhood it is often good surgery to remove such portions as are pathologically involved, allowing the repaired uterus, tubes, or ovaries to remain and perform their work until nature terminates their usefulness at the correct period. I have many times removed per vaginal route—which is always to be preferred, when not contra-indicated—scarred tissue from the ovary, cysts (large and

small), separated adhesions and formed new supports. I have cut, curetted, and sewed these organs with the most gratifying results. I have many times removed one ovary, allowing the other to remain, and twice have I seen twins follow a conception in patients having only one ovary. Once have I imbedded an ovary into the uterine wall, it having been necessary to remove the tubes for pyosalpinx. I believe one or two women have given birth to healthy children from a single ovary, or piece, imbedded into the wall of the uterus. I have twice transposed or transplanted ovaries. The pathological conditions calling for this operative procedure were pyosalpinx with diseased ovaries on the opposite side. One of these patients has since borne a healthy child. I do not know of another similar result.

I will invite your attention briefly to pus accumulations in the pelvis and the fallopian tubes. The vaginal route offers a very good field for manipulation of these parts. I have evacuated fluid from an incision through the tube wall at its middle, curetted its mucous lining, inserted drainage through the uterus, reunited its divided parts, and the patient suffered no inconvenience. I have also evacuated the contents of a hydro-pyosalpinx, the fimbria of which tube had entirely undergone degeneration, stitched up the incised wall of the tube, and constructed a new fimbria by dividing the distal end at several points, and stitching one of the newly made fimbria to the ovary. Pus tubes and pelvic abscesses are as a rule best reached and evacuated or removed through a vaginal incision, anterior-posterior or between the folds of the broad ligament. In all cases where pus is found in the pelvic cavity the vaginal incision should be made and the abscess evacuated, care being taken not to allow the general cavity to become infected. If the general peritoneal cavity has been opened electrozone gauze should be inserted behind the pus sac, walling off the parts above.

I now come to the vaginal hysterectomy. I will briefly mention four methods of performing it.

1. Extirpation or enucleation without ligatures.
2. Extirpation or enucleation with ligatures.

3. Extirpation or enucleation with cautery.

4. Extirpation or enucleation with clamp.

Extirpation or enucleation of the uterus without ligatures is by no means a new operation, having been successfully performed as long ago as 1814. Appalling as it may seem to remove an entire organ, an important one at that, without a single ligature, it is yet feasible. No large vessel enters the uterus deeply; both uterine and ovarian arteries ramify and penetrate the organ in numerous small branches, hence we can do work with safety if we keep within the outer layer of the uterine tissue or close to its surface. But why do this operation? What is gained? The operation, when possible, which is in only a limited number of cases, is less safe, less rapid, and more difficult than any other method. The advantage claimed for this method is non-infringement of terminal nerve fibers. I claim as much in similar cases for the clamp. My greatest objection to this method is that it does not limit the blood supply in the immediate vicinity of the organ removed. Ligation is a favorite method of controlling the hemorrhage, and is preferred by many. While this method has proved quite satisfactory to me, still I submit the following objections to it:

1. When the uterus is well up and fixed the ligatures are passed with difficulty.

2. They are apt to slip, and a troublesome hemorrhage ensue.

3. Subsequent fistula from ligature.

4. The stumps are stub-shaped, and consequently the form of the broad ligaments are permanently changed.

5. When the tissues are friable, hemorrhage is not well controlled.

6. Danger from secondary hemorrhage. Extirpation of the uterus by cauterization I have not tried, though I have seen others attempt it and utterly fail to accomplish anything with the cautery.

The fourth and last method, that of which I shall speak, is extirpation of the uterus by clamp.

For all pathological conditions of the uterus and its appendages which demand their removal per vaginum, my choice is unqualifiedly in favor of the clamp.

The advantages this method offer are:

1. The broad ligaments are not distorted.
2. They are applied with greater facility and more quickly, from three to ten minutes being usually sufficient.
3. They are safer.

I have many times removed the uterus and its appendages by this method, frequently using but two clamps in the entire operation; even in the most complicated cases four will suffice.

To detail the technique of this method, with which I am aware you are so familiar, would be a needless consumption of time; therefore I will briefly mention a few important features in which, so far as I am aware, I differ from methods used by those whom I have had the pleasure of seeing operate.

First. I clamp between the folds of the broad ligaments, in the connective tissue, after freeing their peritoneal attachment from the uterus.

Second. I clamp only to the fallopian tubes, separating them from the broad ligament with my finger or scissors, and, when necessary, with a running suture draw the divided edges together, taking in the edges of peritoneum reflected from the rectum and bladder.

Third. I rarely do any central packing, but prefer to have my clamps in contact, thus leaving the smallest possible surface to granulate.

I place my gauze above and below, just covering the tips of the clamps; also at the sides; and should there be any oozing this method of packing quickly controls it.

The advantages of vaginal route over the abdominal are, in like conditions:

1. It is a more rapid operation.
2. Little or no disturbance of abdominal viscera.
3. No ventral hernia.
5. No abdominal scar.
5. Hemorrhage more easily controlled.
6. Less shock.
7. Less danger of injuring the uterus.
8. Less danger of injuring rectum and bladder.
9. An abdominal supporter is unnecessary.
- 10th and lastly, our patients prefer it as a rule.

Difference of opinion I believe no longer exists as to the proper treatment of a cancerous uterus, when the disease is confined to that organ; that is to say, when there is no involvement of the pelvic glands, or of the broad ligaments, the bladder, or of the vaginal walls, and when the uterus is movable.

For this condition vaginal hysterectomy is the operation, *par excellence*. Even when the adjacent structures are involved, and an operation is decided on, it is still the preferred route.

Myoma or fibroma of the uterus, whether submucous, submural, or interstitial, or subperitoneal,—even when as large as a fetal head, freely movable or moderately so,—may be removed through the vagina entire or by morcelation. I have removed fibroids of comparatively large size, complicated by omental and intestinal adhesions, by the vaginal route.

In nearly all cases where hysterectomy is determined on, and the vaginal route not preferred, I operate by the combined vagino-abdominal method.

The advantages of this method are:

1. The peritoneal cavity is exposed for a shorter time.
2. The separation of the uterus from rectum and bladder is more rapid.
3. The cervix is more readily outlined.
4. The uterine vessels are more easily secured.
5. Manipulation is facilitated by the greater mobility of the tumor, due to the freeing of the uterus from the base of the broad ligaments.

Prior to performing a hysterectomy by any method, I curette the uterus or occlude the os cervix to insure against infection.

I will next refer to *procedentia*. *Procedentia*, or complete prolapse of the uterus, occupies a most unique place in the gynecological field.

The very large number of operative measures devised for the cure of this troublesome condition suggest that, as yet, we are without means applicable to all cases and wholly satisfactory.

Alexander's operation I have performed a number of times.

While I succeeded in finding the round ligaments, they were, owing to their size or consistency, totally inadequate to support the uterus for more than a short time. I have also shortened the round ligaments by the intra-abdominal method: which is performed by catching the round ligaments an inch or more from their attachment to the uterus, using sufficient traction to raise the uterus a little above its normal position and throw the fundus slightly forward; the portions of the round ligaments now opposite are freshened and stitched together by passing the suture through the ligaments. If the sutures are passed around the ligaments their blood and nerve supply would be cut off.

This method of shortening the round ligaments, also of dividing the utero-sacral ligament, I have used in correcting retro-displacements of the uterus.

Antero-vaginal fixation for the correction of procedentia I have done, but sufficient time has not elapsed to warrant me in expressing an opinion as to its permanent usefulness.

This method consists of an incision in the median line through the mucous membrane, beginning about an inch below the meatus uterus and extending to the cervix. The cut edges of the mucous membrane are caught up and a lateral dissection on each side of about an inch is made, care being taken not to injure the bladder. The bladder is now separated from the uterus,—or the separation of the bladder from the uterus may be done first,—the peritoneum is opened, the uterus elevated, the fundus grasped and brought forward, its surface freshened, and, with the bladder resting on the fundus, the uterus is stitched into the wound.

Ventral fixation is another method for correcting procedentia.

The usual objections to this operation are:

1. Peritonitis.
2. Strangulation of the bowels or intestinal obstruction caused by a loop of intestine falling between the uterus and bladder.
3. Miscarriage, and interference with labor.
4. Cystitis.

Personally I have observed none of these conditions develop

in any patient on whom I have operated. Two patients on whom I have fixed the uterus to the abdominal wall have borne healthy children and suffered no inconvenience whatever in the accouchement.

The last method to which I shall refer for the cure of procedentia is vaginal hysterectomy. This I advise when all means known in minor gynecological operations, such as perineorrhaphy, colporrhaphy, etc., fail, as they usually do; and I desire here to emphasize that the support of the uterus is not from below, and perineorrhaphy is as useless an operation as it is unjustifiable when done to cure procedentia. Many of these women—in fact, the majority of them—have reached the menopause, or have passed it, so that the loss of the uterus does not assume the importance it acquires when its removal is contemplated during the child-bearing period.

In performing the operation for the cure of procedentia, I remove V-shaped pieces of mucous membrane from anterior and posterior vaginal walls. This makes extrusion of the bladder impossible.

I am aware that I have omitted much that could be said and which might prove interesting. I trust, however, that some features of this paper may interest you and evoke your criticism, thus enabling me to share with you your experiences in these perplexing conditions.



SLIT OPERATION UNDER COCAINE.

BY CORA SMITH EATON, M. D.

There are many cases presenting symptoms of local discomfort and of sympathetic disturbances in other parts of the body from hemorrhoidal growths. Some of these patients cannot afford either the time or the money for an ideal surgical removal of the hemorrhoids at the hospital. It taxes our ingenuity to relieve these patients while conforming to their conditions. Several of these have been treated at my office with gratifying results after the method described in the following case.

Mrs. A. M. L., aged forty-five; past the climacteric; no laceration, but a tendency to prolapsus of all pelvic organs, although the uterus retained its normal anterior curve. She came because of vesical irritation, evidently gonorrheal, which supposition was later confirmed by confession of her husband, who is a traveling man. There was much tenesmus, urging, oozing of greenish discharge from the urethra, general bearing down and aching of hips and external genitals, extending into the thighs. The bladder trouble was completely cured in about six weeks by hydrozone irrigation, two teaspoonfuls to the quart, and by cantharis 1x internally. The uterus was also propped up by hydrastis cerate tampons, and eventually retained its normal height in the pelvis. Notwithstanding this improvement, the aching in the genitals and thighs continued and made her life a burden. As a last resort I carefully examined the rectum, and found internal hemorrhoids. Placing the bivalve speculum in the rectum, with patient in the knee-chest position to throw a good light into the field of operation and make it more accessible, I selected two pile tumors for the first treatment, and injected into each one about four minims of a four per cent. solution of cocaine, freshly prepared from P. D. & Co. tablets. I then seized the apex of one pile tumor in a pair of forceps, and with curved scissors amputated the hemorrhoid, paying no attention to the bleeding, which was profuse. I similarly treated the cocainized hemorrhoid on the other side of the rectum. On removing

the speculum the bleeding stopped at once under the contraction of the sphincter. She was directed to apply four or five times a day a cerate made of hydrastis and hamamelis and æsculus, to wash out the rectum with a cupful of weak hamamelis solution after each bowel movement, and to use svapnia one-grain suppositories for pain, if necessary, the first day or two. She was obliged to keep quiet for a few days, although not confined to the bed. After two weeks the surgical treatment was repeated in other parts of the rectum, and this course followed out until all hemorrhoids and papillæ were removed. The patient reports complete relief from the troublesome symptoms, and says she feels like a new woman, and cannot thank me enough for having cured her without hospital operation. There are several other cases with a history of similar relief from office operation. I never have the slightest trouble from the cocaine anæsthesia, as I give strychnine 1-30 grain by mouth before using it. The free bleeding removes danger of toxic effect. Following the operation, before the patient is sent home, I have her take 1-4 grain morphine by mouth, and require her to rest for an hour or so at the office.



INANITION.

BY F. C. STEWART, M. D.

Congenital dyspepsia is perhaps the most subtle cause of inanition. It is a condition in which the infant is born with functional defect in some one or more of its organs of digestion. In one case the functional defect may be in the liver; in another in a stunted or perverted nerve supply to the stomach; and yet in another in a functional bias of the intestines; and even yet in another in the building up of the material into tissue in the assimilation.

Neither during the progress of the disease does there manifest, nor after death is there discernible, any pathological changes in the organs.

These babies are born plump and healthy to all appearances. But after a time, short in some cases, longer in others, it may be noticed the baby is not doing well; is not thriving, and this condition becomes more and more manifest, and the marantic symptoms progress steadily. Malassimilation in many cases moves on in spite of medicine, in spite of change of food, in the face of all that can be done by doctor and nurse. General emaciation becomes more and more apparent; the extremities waste to bones covered only with skin; the whole frame of the skeleton shows prominently, and the skin is wrinkled and lifeless.

This disease is differentiated from those that present similar symptoms by the child having been born healthy in appearance, and the absence of positive symptoms of other diseases.

The afebrile form of tuberculosis produces a form of inanition difficult to differentiate. These cases are lingering, and the emaciation is extreme to the last degree. But the family history, together with the poorly developed chest, the large belly, and the bright precocious look in the child's face, will generally assist us to the proper diagnosis.

In hereditary syphilis it is often difficult to positively differentiate the disease causing the inanition. But in the greater number of cases of hereditary syphilis the problem is

an easy one, because of the positive symptoms plainly presenting.

However, there are cases of failure to grow, of wasting of flesh, of inanition that do present, in which it is difficult to make the positive diagnosis for the reason that the commoner symptoms of syphilis do not manifest; but with a vigilant watch for such symptoms as snuffles, hoarse cry, cutaneous manifestations, together with the underdeveloped, wakeful child and its sad, senile look, the cause of the inanition can quite surely be made out.

In these diseases reviewed cursorily, the cause or causes of inanition are deep-acting, are largely ante-natal. But there are other causes that are post-natal, are brought about by poor food, by the feeding of food that cannot be digested by the baby.

I have thought that sterilized milk is to blame at least for some cases that do not thrive and grow as they ought. I am convinced that sterilizing milk makes it harder to be digested by the infant. Of course in the cities of the first magnitude it may be a choice of the lesser of the two evils—feeding the baby sterilized milk in preference to giving it milk that is from fourteen to thirty-six hours old; that has been jostled in wagon, train, and wagon, in tin cans, in long distance transit, during the heat of summer; milk that is advancing in germ multiplication and in decomposition. Under such conditions the lesser evil is to kill by heat the bacteria and arrest decomposition, even though this sterilizing renders the milk less digestible than pure milk; it is yet better food for the baby than the state in which it is obtained from the dealer. But in the smaller cities, villages, and country districts, where the place of consumption is near the base of supply, so the milk reaches the baby in a few hours at most after milking, and the transit in the heat and the jostling and churning of shipment are minimized, in my opinion it is better to not sterilize this milk. The danger that milk contains tuberculous germs is very small indeed, as milk from cows infected with tubercle in the udder only produce milk containing such germs. In the foundling ward of the Indianapolis Orphan Home no milk is sterilized, and an improvement is noted since we quit it.

Formaldehyde, sold under any commercial name, formaline, preservine, iceline, etc., will make milk less easily digested, and as a consequence produce inanition. It may not be an active poison, but it acts to slowly starve the baby to death. Any antiferment that is so powerful that less than one drop will keep a quart of milk, in an open vessel, during June to August weather, sweet twenty-four to thirty-six hours, will prevent the milk from being easily and readily acted upon by the digestive ferments.

I sent in four reports of deaths last July, due to formaldehyde poisoning, or due to inanition from this cause. At that time it was difficult to convict dealers who sold milk so treated, as the law required proof that the dealer himself put the formaldehyde in the milk. But the present law requires only proof of its presence in the milk to convict the dealer. It will now be used with great caution by the dealers and dairymen.

Inanition is many times produced by the artificial foods used, other than cow's milk, for infant feeding. Beyond question in the greater number of cases the mother's milk is far superior to any other food for babies, and cow's milk has many points to its favor over all other bottle foods as a second.

Unhygienic surroundings is a condition that will greatly assist in all these cases to bring on a state of inanition, hence in the treatment of all such cases have the environment as nearly ideal as is practicable.

In the cities many cases of inanition are met, due to the different and varied causes that operate to produce it, and the doctor's skill is taxed to its utmost many times, and even then failure follows his efforts.

The medicinal treatment is a long story and cannot be brought within the limits of this short paper.

RARE CASES OF ECTOPIC GESTATION.

BY C. B. KINYON, M. D.

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During the last few years very much has been done by way of investigation and operation to elucidate the ever-troublesome subject of ectopic gestation. I use the word troublesome advisedly, for of necessity it is a condition surrounded by more or less uncertainty. Frequently there are no symptoms leading the patient to consult the physician; in fact, she may count herself perfectly well, and without a moment's warning be stricken down with terrible pains, with collapse, and may die before anything can be done for her. Two years ago I read an elaborate article upon this subject before the American Institute. Medical journals of late are teeming with articles upon this subject, and the recent text-books have also given it due consideration. This being true, I shall not go into detail at this time, but simply give, as briefly as I may, a few cases of marked interest to me, and I hope they may also be of value to you. The first one which I give you is not so very rare, and yet it is very seldom that the diagnosis is made and the proper treatment given at the right time. For this reason I deem it best to go somewhat into detail.

On the 2d of December, 1899, Mrs. T., aged fifty-five, entered the Homeopathic Hospital at Ann Arbor. She gave the following history: She was the mother of four children, all living and enjoying good health—the youngest fifteen years of age. At the age of forty-four she missed the menstrual flow about three months. She suffered from symptoms leading her to believe that she was having the change of life. One forenoon, while churning a small batch of cream, she was suddenly seized with a severe pain in the abdomen, so severe as to compel her to double up on the floor. She immediately became unconscious, and in this condition her friends found her. She was covered, or rather bathed, in a profuse cold, clammy sweat; in other words, was suffering from profound collapse. A physician was hurriedly summoned, who used stimulants freely. After nearly two hours

the patient slowly regained consciousness. She was very ill for three weeks with what the doctor called inflammation of the bowels. The attending physician was too prudent a man to make a positive statement as to what caused the original attack, for he was conscious of the fact that he did not know. During the second week of her illness in bed she had another severe attack of pain, and what might be termed a partial collapse, but soon rallied. The patient gradually improved so that at the end of six months she was able to do her own housework on the farm. When fifty years of age she had another severe illness; this was called, which was probably true, peritonitis. This attack was very severe, and lasted for about two weeks, with a temperature as high as 106, and delirious most of the time; in fact, the physician at times was half inclined to pronounce it typhoid fever. The patient was able to give a very distinct history of the cause of this attack. She was riding in a carriage returning from a funeral; it was rather late in the day and they were in quite a hurry to get home, and were driving fast. There was a small bridge from which the dirt was worn away, leaving a jog of six or eight inches above the surface of the road. As the carriage struck this bridge the spring broke, throwing the occupants of the carriage forward onto the dashboard and injuring the woman severely. The pain following this accident was so intense that she fainted away and was carried four miles in this condition. Following this accident was the severe illness above described. During the five years following this attack she had several severe attacks of inflammation of the bowels, frequently assuming the form of dysentery. It perhaps might be well to make known one fact which the patient gave me at this time. Immediately following the first attack the patient was conscious of a growth in the abdomen, but she was so fleshy that she could not form much of an idea of the size and location of this growth. From her fiftieth to her fifty-fifth year she gradually lost flesh. As the adipose on the abdomen disappeared, the growth became more prominent. A few weeks before entering the hospital a fire broke out in the woods near the house and she, in common with the other members of the household, went out to fight the fire and protect their home.

But her husband and son would not allow her to help them fight the fire, but insisted upon her returning to the house. In doing so she stopped at the barn to gather the eggs. In reaching into the manger for some eggs she lost her balance and slipped over into the manger, thereby bringing severe pressure across the abdomen directly over this tumor. This excited inflammation in the growth to such an extent that for many days her life was despaired of. The pain was intense, very high fever, with a succession of severe chills. Patient lost flesh rapidly, and had a worn, haggard, very sick-looking countenance. It was with the greatest difficulty that she could be brought to the hospital in an ambulance.

When I first saw the patient in the hospital I found her too ill to make much of an examination. Without any effort whatever I could diagnose a large mass in the right side of the abdomen firmly wedged in the pelvis, extending up to the umbilicus and to the left of the median line three inches or more. This mass was very hard, nodular, and tender. Her temperature was 104. Pulse quick, wiry, and somewhat unsteady. There were marked symptoms of infection and supuration in this tumor. This being true, it was not necessary to worry the patient with a very thorough examination, for we were face to face with a condition which demanded an operation, and that immediately, as offering the only hope. Of course I knew full well that the chances were desperate. But with the consent of the friends I decided to give the woman the benefit of the chance. I am free to confess that I made a mistake in my diagnosis at this time. I fully believed that I had a case of fibroid tumor, which had become infected and was suppurating. After a few days' treatment, in order to bring the patient into the best possible condition, I operated on the 14th of December, 1899. I made a long median incision from the umbilicus to the symphysis. We at once encountered a formidable mass of adhesions to the abdominal parities, to the omentum, to the intestines, to the bladder, and the mass was firmly wedged within the pelvic cavity. After loosening the omentum and intestines, which necessarily consumed considerable time, requiring numerous ligatures, the mass was readily rolled out of the pelvis. This

mass was fully six by eight inches in diameter. The abdomen was thoroughly flushed with salt solution, the abdominal toilet hurriedly concluded, the incision united by figure of eight silkworm gut sutures. The temperature dropped one degree within twelve hours, and gradually declined, and the patient made an uninterrupted recovery and went to her home within one month; has since enjoyed perfect health. The growth which I removed was examined at the pathological laboratory of the university. It was found to be a large, more or less organized blood clot; in other words, properly called a hæmatoma or blood tumor. This had suppurated in several places, and the wonder is that these abscesses were not broken during the removal of the tumor. In the lower part of this tumor was found an ectopic gestation sac, which was, as nearly as could be told, at about the third month of gestation. Of course the cause of the tumor was now clear. Let us briefly consider a few points which come to mind.

How much better it would have been for this patient had the operation been performed at the time of the primary rupture. This would have prevented all further trouble. As it was, she had the secondary rupture, besides repeated attacks of very serious illness. This is only one of numerous cases which have come to my knowledge which lead me to conclude that in all cases of ectopic gestation we should operate at the time of the rupture or before, if the diagnosis can be made. Do not, I beg of you, trust to nature to absorb the products of conception. It is certainly far better for you to remove the products of conception, and then nature will not be so severely handicapped.

The next case is very different, but equally instructive. The patient, Mrs. L., aged thirty-nine; the mother of five children, the oldest twenty-one and the youngest eight years. Her labors were all very hard, puerperal fever following the second confinement. Had one miscarriage at the fourth month. Three years ago she had a fibroid tumor removed from the uterus through the vagina. For five months previous to this operation she was sick in bed because of profuse hemorrhage and severe pain. She rallied from this operation very slowly. About a year and a half ago she began flowing excessively

again at the time of the menstrual period. This increased in quantity until about three months ago, when the flow gradually diminished in quantity, but the pain and bearing down in the abdomen gradually increased. Two or three weeks before entering the hospital the flow increased so rapidly that the attending physician thought best to curette the uterus. This did not improve the patient's condition, and her physician advised her to go to Ann Arbor and enter the Homeopathic Hospital. This she did on the 6th of December, 1900.

At my first examination I diagnosed a submucous fibroid of the fundus of the uterus, and curetted quite freely for the purpose of obtaining some material for examination, as I had some suspicion of sarcoma, and wished to have the material carefully examined. At the time of this curettage I noticed an unusual flow of thin fluid, and remarked at the time that it seemed more like water than blood, though of course it was the color of blood. In order to guard against hemorrhage I packed the cavity firmly with iodoform gauze, fully intending, if the examination showed sarcoma, to perform hysterectomy. This gauze excited such severe pain that it had to be removed during the night. In fact, the patient made the statement that the pains were as hard and almost like "she was having a baby." This relieved the pain somewhat, but still the pain was so severe that I decided not to wait for the report from the pathologist, but had the patient prepared for an anæsthetic on the second day. With everything in readiness I proceeded to curette, fully intending, if I could not remove the growth satisfactorily with the curette, to remove the uterus. You can, perhaps, imagine my surprise when, upon using the curette well up in the right cornu, I removed some bones. Proceeding still farther into the wall of the uterus, I removed a child's head at about the size of a three-and-a-half months' fetus. I then determined to thoroughly remove the products of conception with the membranes and remnants thereof. If, in so doing, I should rupture or penetrate the uterine wall, I was prepared to remove the uterus in its entirety, thereby saving the patient from infection. It was a source of great satisfaction to me that I was able to remove thoroughly all the products of conception without perforating the uterus.

At the same time I removed the fibroid which I had before discovered in the fundus of the uterus. The patient was placed in bed and carefully watched. The pains ceased immediately, the temperature dropped from 102 to 99 within twenty-four hours, and the patient made a very satisfactory recovery and returned home within a month, and is now enjoying good health.

We have here a case of interstitial pregnancy, one of the rarest forms with which we have to deal. It is still more rare that these cases survive. The rule is that the rupture occurs from the third to the fifth month, and is fatal to the mother because of the enormous size of the blood vessels and the alarming hemorrhage therefrom. In this case we reached the products of conception and removed them through the uterine cavity before they had reached the stage of rupture. The lessons to be drawn from this case are the necessity of a careful examination under an anæsthetic, and prompt and vigorous treatment of the conditions as found.

The next is one of the rarest known forms of ectopic gestation, and is without doubt the most interesting case which it has ever been my fortune to meet. The patient, Mrs. G., aged thirty-one, mother of one child, eight years of age. Labor was very hard, but no instruments were used. The mother's health was quite poor following this confinement, so much so that the child was weaned at the fifth month. She was such a sufferer from what she called "womb disease" that she was treated for over a year. After this treatment she enjoyed better health, and was fairly regular with the menstrual periods until January, 1900. She did not have them after that. In May of the same year she consulted her physician, who gave her some medicine for the purpose of bringing on the "courses" and making her stronger. In June of the same year she went to her physician again. He made an examination and diagnosed a tumor, but did not tell her what kind of tumor. The following month, July, the patient was sure that she felt "motion." This motion increased from week to week during August, September, and October. On the first of November she was taken with what she supposed were labor pains, and sent for her physician. The physi-

cian responded promptly to the call. The pains continued for several hours, but as near as I can gather from the patient were not at all regular or typical of labor. But be that as it may, the strange part of it is that at no time during his stay at the house did the physician make any examination whatever, except putting his hand on the abdomen. As the pains did not increase, and the motions of the child having ceased, the patient quieted down and the doctor went home, with instructions that they were to send for him when the pains came on. As the pains did not come on they did not send for him. As near as I can recollect, the doctor did not make any examination of the case during the months of November, December, or January. The patient was absolutely certain that she felt no motion after this sick spell, the first of November, and so stated to the doctor. During November, December, and January the patient was around some, but failed in strength very rapidly. The abdomen did not grow smaller; in fact, she is sure that it continued to increase. As you all know, it is the rule for the liquor amnii to be absorbed and the uterus grow smaller after spurious labor. It was not absorbed in this case, but the effusion increased. This fact can readily be believed when we recall the amount of liquor amnii we found at the time of the operation. During these same months the breasts became very soft, shrunken, and flabby. At the suggestion of one of her neighbors, who had decided to enter our hospital, this patient accompanied her. They entered the hospital on the 24th of January, 1901. I made as careful an examination as the patient's strength would permit, and found that we had an enormous growth of some sort in the abdomen. There was so much water, therefore so much fluctuation, that I could not distinguish definitely what we had to deal with. The abdomen was so full and tense and the growth seemed so firmly fixed, being absolutely immovable in any direction, that I was exceedingly loath to make a positive statement. Basing my conclusion alone on the mother's statement that she was absolutely certain that she felt vigorous motion for four months, I concluded that we had some form of ectopic pregnancy to deal with, but which form I had no idea. And it did not matter,

the only course to follow was to open the abdomen and then remove whatever we found. Accordingly on the 6th of February, after bringing the patient's strength up to the highest possible point (it must be borne in mind that the patient was very weak, unable to retain any food, and exceedingly emaciated). With everything in readiness, I made a long incision through the thin, tense, abdominal walls, extending nearly to the xyphoid cartilage. We immediately came in contact with a large, shiny cystic body, which was absolutely immovable. This filled the entire abdominal cavity, greatly distending its walls. I could not make out the uterus or anything that looked like any of the pelvic organs. I inserted a large trocar into this cyst and drew off several quarts of a chocolate-colored fluid. The canula came in contact with a solid body which was very movable. This I at once concluded was a child. I therefore made a long incision in this cyst and removed a well-developed, full-grown child, which of course had been dead one hundred days at least. After this was removed I was able to make out the location of the pregnancy, which I found to be in the left broad ligament. With the greatest difficulty I succeeded in enucleating the sac from the broad ligament, but found that the lower part of the growth wrapped around, or rather included, the ureter. The uterus I found at the right of this sac, or growth, crowded well up against the liver. In order to save time, which was very important in this case, and the better to control hemorrhage, I removed the uterus with the sac, and as hurriedly as possible sewed the layers of the broad ligament from which the sac had been enucleated to the abdominal opening and closed the abdomen, except such opening as was necessary for drainage. Because of the firm connection of the sac with the left ureter, a portion of the sac had to be left within the abdomen. This fact, coupled with the fact that the child had been dead so long, and the patient already suffering from such serious and marked degree of infection, necessitated drainage. Working as rapidly as I could, the operation consumed nearly an hour and a half. The patient was put to bed in a very collapsed state indeed. She partially regained consciousness, but had not sufficient strength to be fully conscious,

and died from shock and sepsis forty-eight hours after the operation. This in many respects was to me one of the most astounding cases in all my practice. This child had been in the mother's abdomen thirteen months. At the tenth month the mother had a typical case of spurious labor. How a physician could sit by her bedside for hours without even making an examination I cannot understand. Again, how that woman could live three months with that dead child undergoing decomposition and necessarily being absorbed throughout the system is equally as mysterious. I am sure that comment on this case is unnecessary, further than to say that the physician should have made an examination. If he was able to make a diagnosis and was a skilled operator he should hold himself in readiness to operate within two or three weeks after this spurious labor. If he could not diagnose and operate, it was his duty to call in a consultant. By that time the circulation through the placenta is so far cut off that there is no danger from hemorrhage. Even at the time of this spurious labor the operation would have been perfectly safe in the hands of a skilled operator.

I fully appreciate the fact that these cases might well furnish a text for a long article, but their mere recital is enough to fix in your minds one fact, viz., it is not possible to diagnose these obscure cases, except under anæsthetics, and even then great care is needed, and the examiner must always be prepared for each step as it shows itself. It is the unexpected that often happens. Do not sit idly by and guess that all is going well. But know what the conditions are. Be prepared to meet them, and all will go well.

DENTITION AND ITS DISORDERS.*

BY W. W. GILBERT, M. D.

Much friendly strife and controversy has existed among medical authors and writers for years as to whether or not the physiological process of dentition can be considered an ætiological factor in the production of the numerous mild, serious, and often fatal diseases of the first two years of infancy. Mothers, one and all, ignorant and intelligent, poor and rich, black and white, will say that most of the infant's diseases are either caused by teething or else aggravated by it. Who can tell more about the baby than the mother? Who has watched the budding and developing of those little milk teeth more closely than she? Who knows what diseases to look for during this period, and what simple methods to use, better than she who rocks the cradle or walks the floor day and night with the peevish, whining, and fretful teething baby? These same mothers will say that only about fifty per cent. of the teeth are erupted without difficulty in some way. Physicians and medical authors will say all dentition is normal, and any disease occurring at that time is simply coincident and has nothing to do with the process of teething.

There certainly are many disorders accompanying and having for their origin dentition, celebrated physicians to the contrary notwithstanding. How often do we hear about peripheral nerve irritation as a cause of many, many ailments in the adult. This being the case, consider the irritation occasioned by the tense stretching and inflammation therefrom resulting when the little tooth germ tries to make its exit through the dental process and the gum. Who does not recall at present the last tooth he or someone else "cut," namely, the "wisdom tooth"? One lady I remember had convulsions from the irritation produced by the eruption of a wisdom tooth, which were only relieved by lancing the gums. Remembering these last teeth, who can say the child does not suffer or has not a reason to have reflex disturbances? Who can say that the

* Section in *Pedology*, Am. Inst. of Hom., 1901.

attack of indigestion, with resulting gastro-enteritis, is caused by sour milk taken from a sour bottle, thus putting the blame on the innocent, heart-broken mother for the death of her child, when the real cause is primarily irritation from teething?

The physiological process of dentition should cause no trouble. There should only be a slight elevation of temperature and a little redness and swelling of the gum over the tooth erupting, with some noticeable increase in salivation. The teeth should come in regular order. First, the two lower central incisors, from the fifth to the seventh month; from the seventh to the ninth month the two upper central incisors, followed shortly by the upper lateral incisors; between the ninth and twelfth months the lower lateral incisors and two upper anterior molars; followed in about two months by the two lower anterior molars; between the fifteenth and twentieth months the four canine teeth should appear; and from the twentieth month and the second year and a half the four posterior molars erupt. Thus the Creator in his wisdom, it would seem, had expected a little interval between each set for repair of the vitality and a preparation for the next ordeal. Possibly—from estimate, not from statistics—something over one-half of the infants acquire their teeth in this order and with no resulting morbid disturbance. The remainder acquire them with no regularity at all, and often, instead of two or four at a time, will have eight or more teeth all clamoring to be number one in presenting itself to the proud but worn-out mamma. This, much to the discomfort of the child. One infant under treatment at present is seventeen months of age, and is trying to bring ten teeth in evidence at once—its first effort. It is the exception to the normal physiological function from which so much trouble arises. This irregularity is doubtful as to origin. Even apparently healthy infants will be backward about acquiring teeth, just as some are backward about walking or talking.

The symptoms of chewing and “munching” and irritability are especially aggravated when the tooth is forcing its way through the dental process, or, as the nurses say, “the tooth is setting in the gum.” This is accompanied by fever and a constant desire to be nursing, partly on account of the fever

and partly to gain the relief of having something pressing firmly against the gums. These symptoms become aggravated and ameliorated intermittently until the tooth finally makes its appearance. Just before the tooth does appear, however, the infant takes a great dislike to anything that touches the sore gum. Contrary to the relief experienced when the tooth is starting, they now will hardly nurse at all because of the tenderness. During this period care should be taken not to overfeed the infant. The desire to be continually nursing should be gratified frequently by something other than food—this will be mentioned under treatment. The weight of the child will not remain stationary and may even decrease and will cause the parents much alarm.

If the child is healthy no other trouble will be experienced, but if it is delicate or rachitic, if several teeth erupt at once, or if the child is enfeebled by improper diet, then complications ensue. Of the complications, one that is very simple is stomatitis, caused by hyper-secretion of saliva, which, being irritable to the mouth, results in "canker sore mouth." This causes more fever and more irritation, disturbing the stomach and bowels, causing diarrhea, with the accompanying train of symptoms. The characteristics of the discharge are the green or thin yellowish stools with undigested curds. Milk that at other times was digested perfectly is now passed in lumps. The habit that many mothers and nurses have of feeding the baby from the breast or bottle whenever it is cross and fretful from whatever cause, whether it has just finished nursing or not, causes an overloaded stomach and an acute attack of indigestion, which makes it more cross and results in more feeding. This, together with the teething process, makes a very sick infant.

Complications of dentition with nervous troubles are quite frequent, and should always cause a guarded prognosis, especially when the child is scrofulous or tubercular. Few indeed are the recoveries, and the dreaded second summer has more than a fictitious significance. The child could no doubt survive either singly, but when occurring together it requires more than ordinary vitality to withstand the attack. Another frequent complication is a "cold"—the infant being particu-

larly susceptible to every draught while the nervous system is under the tension of teething. In fact, this symptom is generally the cause of the physicians first visit, as the parents thought the child was "only teething" at first, and gave it little extra attention until it began to cough or vomit. Convulsions resulting from dentition are rare, except from the standpoint of the laity, who consider them of common occurrence.

One word of advice should be given to parents regarding the destruction of the milk teeth and the appearance of the permanent set, and that is, to preserve the first set until they are either made loose by the eruption of the second set or else there is evidence of the permanent tooth appearing at the side, in which case number one should be extracted. Teeth that decay before this time should be filled.

As the disorders of dentition in healthy infants are transitory and produce few alarming symptoms, little treatment for them is required. A careful guarding of the diet and clothing will be sufficient to prevent complications. Should a mild diarrhea begin, it can easily be arrested by a slight change in the food. If fed artificially on cow's milk, this can be changed to cream, raw meat juice, or some easily digested baby food for a few days. If nursed from the breast the mother's diet should be changed according to circumstances. During the heat of the day in the summer time very little clothing should be worn. A cotton shirt, a diaper, and a slip will be sufficient. As the cool of the evening comes on this can be reinforced by a skirt and possibly a jacket. At night some warm nightdress should be used. In the winter the child should not be dressed too warm. An infant that is accustomed to the cold will be less liable to attacks of bronchitis and broncho-pneumonia, while teething, than the one that is always perspiring profusely from a superabundance of clothing.

It is the delicate or strumous infant who is teething that will require our serious attention. Much can be accomplished by the properly selected homeopathic remedy, together with strict attention to diet, bathing, and clothing. The latter are not absolutely necessary, however, as I have seen much good

result, in dispensary practice particularly, from the properly selected remedy alone, when the child was fed on anything, bathed with anything but water, and clothed with nothing—but dirt and the much-abused figleaf.

In this connection the value of the gum lance must not be overlooked. This instrument should not be used until indicated by the tense, swollen, red, or white shiny gums—the child constantly holding the mouth open on account of the pain of closing it. The relief from a free crucial incision is immediate, and should be a forcible argument for the use of this method. With ignorant parents who are frightened at the sight of an instrument, it is better to thoroughly disinfect the thumb nail, and, after cutting a slight niche in it, rub the gum covering the tooth until it is through, rather than allow the child to suffer several days, possibly weeks, with the tooth trying to force its way to the surface. Great care must be taken in either operation to prevent infection, and the aseptic gum lance is preferable to any other method or instrument.

Soothing syrups are only mentioned to condemn them. Most of the syrups and cordials contain opium and should never be used. The nervous excitability can be relieved by other methods and remedies that cause no habit in later years.

Of the remedies from which the most satisfaction will be gained *calcareæ carb.* probably heads the list. Especially for the fat, flabby infant with open fontanelles, weak bones, and the characteristic “pot belly.” *Calcareæ phos.* is very similar in its action. The teeth seem to stop growing just before appearing through the gums, leaving them swollen and painful. The child is thin and emaciated, perspiring freely on the forehead during sleep, and having a thin offensive diarrhea. For the nervous, fretful child *chamomilla* will act better than any soothing syrup on the market. The baby has to be carried to be kept quiet. This remedy has proved a great blessing to many a weary father in his lonesome walk at night with a fretful infant asleep across his shoulders. As soon as the walking stops the child begins to cry. *Chamomilla* will give both their needed rest. Good results will be obtained from *gelsemium* when the child is so nervous and peevish that the nurse fears convulsions. These remedies failing to give

relief to the overtaxed system, *passiflora incarnata* in five- to ten-drop doses will have the desired effect, and give the little sufferer a few minutes' repose. For the red inflamed gums, with flushed face and fever, *belladonna* will be indicated. *Magnesia phos.* is often indicated in painful dentition, in which the patient cries out suddenly as if in great pain, which continues until it seems that spasms will result. It has a thin watery diarrhea, which when passed gives relief. *Mercurius vivus* will have profuse salivation, with a tendency to sore mouth, as its characteristics; also green slimy stools, with much straining. *Hellebore* will be indicated if there is a tendency to cerebral complications. The infant becomes frantic from the suffering. *Aconite*, *coffea*, *cuprum*, or *nux vomica* may be indicated, and should receive careful study.

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MARASMUS.

BY LOUIS E. BUNTE, M. D.

In presenting the subject of marasmus it is not because there is difficulty in the diagnosis, nor from the view of scientific feeding, for this malady is easily recognized, and I do not believe that one can scientifically recommend an unvarying diet for any one child; but rather to elicit some homeopathic treatment that we may meet with more success in the treatment of this most dreaded malady.

Marasmus is nothing more than the extreme form of malnutrition seen in infancy, occurring, so far as is known, without constitutional or local organic disease. Marasmus is seldom met with in private or country practice. It is frequent in dispensary practice of all large cities, and is very common in institutions for young infants.

During the heated season this malady is a large factor in the immense infant mortality of large cities. The primary cause may be some constitutional weakness dependent upon heredity. In premature children and illegitimate offspring it is often seen. In the majority of cases, however, this depends on two factors—surroundings and food. The poor and infants artificially fed almost invariably do badly. This, however, is generally due to the ignorance of the mother as to the proper method of infant feeding, and that upon which the child would otherwise thrive.

The country infant, though badly fed, but being surrounded by plenty of pure air, invariably does well, while that of the city would starve under similar conditions. It is not only bad feeding and unhealthful surroundings, but also an inherited constitutional vice, that are factors that may cause marasmus in its most marked form.

It is also a fact that marasmus is often caused by overcrowding of infants in institutions, the result being, though they are healthy on admission, they decline little by little, until some acute disease ends the scene. The lesions of this disease on post-mortem findings reveal little, if anything. Those

most commonly found are anæmic brain; strip of hypostatic pneumonia on the posterior border of the lungs; the heart, spleen, and kidneys are pale, otherwise normal; the stomach is often dilated, the mucous membrane has a pale appearance, and coated with tenacious mucus.

The theory is advanced by some German writers that atrophy of the intestinal tubules is the explanation of marasmus. Whether this theory is quite correct I am not able to state. However, a more true pathology of marasmus seems to me to be a failure of assimilation, due to imperfect digestion,—possibly due to improper food,—unhygienic surroundings, or a very feeble constitution.

My experience with these cases is not very extensive, but the mother will invariably tell you that she does not know what is the matter with her child; that at birth it was plump and well-nourished, and seemed to thrive for some time, but for various reasons it was found necessary to wean the child. From that time the child ceased to do well.

It begins to lose weight and strength in spite of the fact that the various known infant foods have been tried. This goes from bad to worse. The general appearance of these patients is characteristic. They assume that old look; the skin is wrinkled and hangs in folds upon the extremities. Anæmia is almost a constant symptom. Anæmic heart murmurs are frequently heard. The temperature of the body is usually subnormal. The appetite in severe cases is entirely lost. They refuse to take food from the spoon or bottle, and unless they are fed by gavage they die of inanition.

The more common complications of this disease are bronchitis, pneumonia, thrush, erythema of the buttocks, and bed-sores. In summer these children wilt with the first days of hot weather, and often die in a few hours, of derangement of stomach and bowels.

As a rule the diagnosis of these cases is not difficult, but to differentiate between tuberculosis and marasmus is in some cases almost impossible. The onset, however, will guide us in most of these cases. The marasmatic child does well from birth until weaned or some disturbance in the alimentary canal is caused by improper feeding, while the tubercular child is

feeble from its very existence. The family history is of importance in such cases. When the lung signs are present and situated posteriorly, it may be either tuberculosis or hypostatic pneumonia. Signs in front are more significant, and consolidation anteriorly makes tuberculosis almost certain.

The prognosis depends upon age and the extent and duration of the disease. If the child is over six or eight months of age the chances for recovery are much more favorable than if only three or four months old. Much depends upon whether everything can be done for the child; whether a wet-nurse can be secured or that artificial feeding be done in the best manner. Surroundings are of great importance—as the patients must have the benefit of plenty of fresh air.

In the treatment of such cases, I would say, give anything upon which the child will thrive, for you cannot recommend a certain diet for every child. Above all, I would recommend the mother's milk, or secure the use of a wet-nurse. Where this cannot be had, I would advise the use of pure cow's milk, for there are no infant foods that can be made the equal of mother's or cow's milk. Further, I would advise the use of pure fresh water. I think a great mistake is made by most mothers and nurses in that, when the child cries, they try to quiet it by giving it the breast or the bottle; more, in eight cases out of ten it is only an aggravation to the intestinal canal, being either vomited, curdled, or passed by the bowels undigested. Therefore, as long as the assimilative powers are dormant to a great extent, I advise the reduction of food to two or three times daily, and the giving pure fresh water at frequent intervals. Externally the use of olive oil rubbed into the groins and arm-pits at intervals, not longer than two or three hours, is very nourishing and gratifying to the young infant.

Where you find the temperature habitually subnormal, the incubator should be used. Where this is impossible, it is well to rub the child with oil, roll it in cotton, and surround by hot water bags or bottles.

It is my custom to begin the treatment of these cases with a dose or two of sulphur 200, which relieves the constitutional dyscrasia, and the child often begins to do well without further medication.

Abrotantum is a very useful remedy in marasmus, where there is that gnawing hunger, ravenous appetite; where the child seems to cry for something to eat, and in spite of the great amount consumed it continues to emaciate. The abdomen is greatly distended, with hard lumps in different parts. Food passes undigested, with alternate constipation and diarrhea. The skin is flabby and hangs loose, and is especially indicated in marasmus of children.

Arsenicum is indicated where you have these characteristics. The skin is very dry and chafed; the infant wants water frequently, but it causes vomiting; there is a tendency to looseness of the bowels, with great exhaustion and emaciation; useful also where there is profound anæmia and weakness of the heart.

Calc. carb. and phos. are very useful remedies in this disease; their symptomatology, however, being familiar to all, I shall not enter into its details.

Iodine is an excellent remedy where there is that depraved scrofulous condition with great emaciation ending in marasmus. The appetite is insatiable; nausea and vomiting are often caused by eating and drinking; also enlargement of the glands is present, and the characteristic torpidity and sluggishness of iodine.

Muriatic acid, natrum mur., nux mus., silicia, phos., calc. iod., and geranium are useful remedies when symptomatically indicated.

AN ANOMALOUS CASE. NO VISIBLE CONNECTION BETWEEN BLOOD VESSELS OF CORD AND PLACENTA.*

F. H. HURON, M. D.

On October 4, 1900, I attended Mrs. C., in labor with her fourth child. The presentation being normal and the child seeming to be quite small, I did no meddling, and in a short time the pains became expulsive, and the child was delivered without rupturing the membranes.

I quickly tore open the sack, lifted out the child, tied and clipped the cord, handed the infant to the nurse, placed my left hand over the uterus, and finding it strongly contracted, I felt for the cord at the outlet, to take away the secundines; but finding no cord there, I thought it had been torn loose, and inserted my right hand to remove the placenta, but discovered that there was none there.

I then took up the cord where I had severed it from the child and drew it out, tearing the sack in two, and finding no placenta on the part of the sack to which the cord was attached, I took up the other half and found the placenta complete, excepting no cord attachment, and placing the two halves of the sack together I found that the place where the cord was attached to the membrane was at least three inches from the placenta, and no visible blood vessels extending from the cord to the placenta, nor in any other direction.

Having never seen or heard of such a condition, I wrapped up the specimen and took it to my office for investigation, placing it in a weak formaldehyde solution. Several physicians called to examine it, and each pronounced it to be something not before heard of.

The membrane was quite tender, and in the repeated examinations was torn to the edge of the placenta in one place, but the torn edges can be placed together to show the distance from the placenta to the attachment of cord.

After a few weeks I placed the specimen in the office of Dr.

* Read at Ind. Institute of Homeopathy, May, 1901.

O. S. Runnels of Indianapolis, so that anyone desiring might examine it.

The child weighed three pounds, had a sickly shriveled appearance, with both knee and hip joints flexed and ankylosed, and talipes varus quite pronounced in both feet.

It lived two days and died of inanition.



A STUDY OF 153 CASES OF DISEASES OF THE BREAST.*

BY C. KNOX SHAW, M. D.

Diseases of the breast present an ever-interesting study to the thoughtful medical student. They are of frequent occurrence, of much concern to the patient, and, owing to their well-known difficulties in diagnosis, are perplexing problems to the clinician. Then there is the answer we should give to the question which is sure to be asked us when consulted as to a swelling in the mammary gland, "Is it a cancer?" and "Can I be cured of it?" Nothing is most instructive than to find leisure to carefully compare groups of cases we have seen. We have our impressions, but a study of the course of the disease subsequent to medical or surgical treatment carries our impressions on to the safer ground of ascertained facts. I propose that this paper shall be essentially clinical, conveying my personal observations on cases that have passed through my hands. During my connection with the London Homeopathic Hospital I have not had charge of surgical out-patients, so that most of the cases I have been re-studying are of the severer type that necessitate residence within the walls of a hospital. Beginning with the simpler cases of mammary disease, I shall first describe a few cases of abnormalities in development.

Hypertrophy.—Among my cases there are three interesting ones of hypertrophy of the breast, two in young girls aged fourteen and eighteen, and one in a young man aged nineteen. In the case of Fanny W., aged eighteen, who was in the hospi-

* Presented to the Section of Surgery and Gynecology, Br. Gynecological Society.

tal in 1891, the mammæ developed considerably with the onset of menstruation. The left breast was full for a girl of her age, but the right was very large and heavy, and hung down almost to the level of the umbilicus. Under rest, elastic bandaging, and belladonna locally, and clematis 1x internally, she made great improvement. The second case is particularly interesting, as it tends to support the view that this hypertrophy is not an increase in true gland tissue, but rather an affection of the lymph spaces. She was seen in 1898, and was under observation for a long time. The hypertrophy was almost entirely right-sided, and accompanied with enlarged glands in the axilla; for a time there was extensive lymphatic œdema of the arm and forearm, so much so that she had to carry her arm in a sling. She had never menstruated. She was given many remedies, and pressure was kept up continuously for a long time; and when she was seen by Dr. Blackley at his out-patients' a few months since, the breast had considerably diminished, she was menstruating regularly, and was about to be married. The discomfort at one time was so great that she begged to have the breast removed.

Hypertrophy of the breast in men is generally associated with an effeminate appearance or some sexual aberration, but Mr. G., aged nineteen, who was seen in 1893, seemed a normal young man, except that his left breast was as full as a girl's. A year later the breast was a normal size. In 1895 his right breast was as large as his left had been. Somewhat allied to these cases is the irritable breast of young girls at the onset of puberty. Florence F., aged twelve, was in hospital in 1891. Her right breast had become large and painful. The breast was tender, but not indurated at all; in fact, there was such a sense of fluctuation that an exploring needle was used to make sure there was no fluid. She was treated with bryonia, glycerole of belladonna, and cotton-wool compresses, with relief to her symptoms.

Next we come to the acute inflammatory affections of the breast, ending frequently in mammary abscess.

Abscess.—Abscess, in one or other of its varieties, accounted for thirteen cases. One usually associates this condition with the puerperal state, but in only two—in women

aged twenty-nine and thirty—was this the cause, both cases being admitted five weeks after their confinement. It is really difficult to explain the cause in some of the cases. In 1890 a woman, aged sixty, was in hospital with a large abscess of the left breast, three-quarters of a pint of pus being evacuated. She had not long recovered from a right-sided hemiplegia, and she had a colon full of impacted fæces. Two other somewhat similar cases were seen, one in 1887, in a woman aged fifty, and another in 1896, in a woman aged forty-seven. A young girl of sixteen was in hospital, in 1888, with a troublesome abscess, for which we could assign no cause. A blow seems to have been the direct cause in two cases in women of twenty-eight and thirty-eight. In both these cases the history pointed to a hæmatoma following the blow, and suppuration taking place subsequently in that. In the puerperal condition the origin of the infection can, in probably all instances, be traced to the nipple, and it is possible that, in investigating these doubtful cases, if we were to make a more minute examination of the nipple, we should find some excoriation. Early in 1900 I saw Mrs. S., aged thirty-four, with a painful, indurated right breast, and a retracted nipple. On everting this it was found to be excoriated and bathed in a semi-purulent secretion. Under treatment this got well, but in the autumn the condition returned; there was local mastitis, and subsequently an abscess formed. Only once was a true submammary abscess found. In 1891 a single woman, aged twenty-five, was in Durning Ward. Her right breast had been gradually getting more prominent and tender for nine months. There was a large ovoid swelling at the upper part, but no redness nor especial tenderness. There was distinct fluctuation, which extended beneath the breast to its lower border. There was no induration of the mammary gland itself. Half a pint of pus was evacuated, and the patient made a good recovery. According to Shield, a true submammary abscess is quite the exception. A few years ago I saw in Vaughan Morgan Ward a young girl with apparently a submammary abscess, but which, on opening, was found to be caused by tuberculous caries of a rib beneath the breast. In 1897 we had in Durning Ward a

woman, aged thirty-one, who was admitted for a chronic discharging abscess of the breast, but which was found to be an unrecognized empyema, which had discharged itself by an opening just below the nipple.

It is scarcely necessary to dilate upon the medical treatment of abscess of the breast. I have nothing fresh to add. The surgical treatment needs two points of emphasis. First, we should lay particular stress upon prophylactic measures: great care must be taken of the nipples in the later stages of pregnancy and in the early days of nursing. I feel sure that lead shields are helpful to excoriated nipples. Secondly, when the abscess has formed it should be opened early under an anæsthetic, so that all pockets can be laid open, and the cavity freely drained; a simple rapid puncture is rarely successful and liable to end in a troublesome sinus.

Tubercle.—We must never forget the possibility of tubercle infecting the breast. Of this affection I have notes of two undoubted cases, and one probably tubercular.

In January, 1897, a single woman, aged twenty-eight, was in hospital. In 1895, after influenza, her right breast became painful and swollen, this being soon followed by a discharge from the nipple. The swelling and discharge recurred several times. About a month before admission the left breast became similarly affected. There was a small abscess a little to the right of nipple, with reddened ulcerated skin over it. A cord-like induration could be traced from the abscess to the nipple, which was indented and somewhat eczematous. A hard semi-fluctuating swelling was found internal to the left nipple, which was like its fellow in appearance. Both abscesses were opened and thoroughly curetted. Another time I should freely excise the affected area. She left the hospital February 10. Not long afterward the abscess returned, and she was sent by her mistress to Guy's Hospital, where she was operated on four times, the condition returning each time. Finally, in March, 1898, both breasts were amputated at Guy's. I saw her in January, 1899, when she was quite well and had sound scars.

I saw a very similar case in June, 1900, in a married woman of thirty, without children. She had had a constantly recurring small abscess just above the left nipple, which had been incised several times by her own doctor, and once I had very thoroughly curetted it.

On her admission I deeply excised the whole area together with the nipple, for I found one of the ducts filled with soft gray gelatinous material leading from the abscess cavity to the center of the nipple. Dr. Watkins reported that the portion sent him for examination gave no evidence of tubercle, but in spite of that I am inclined to include this among the tubercular cases. At present this patient is quite well and there is no return.

Though not leading to abscess, the following is a very interesting case of tubercular disease. It was much more general than is usually the case, and thus led to an error of diagnosis.

Mary T., aged fifty-five, was admitted into Durning on June 27, 1898. She was a single woman, with a good family history, and had had no illnesses till a year ago, when she noticed a swelling in her right breast which had painlessly increased in size, but for the past six weeks it had apparently somewhat decreased. She had been taking *phytolacca* under Dr. Goldsbrough's direction for four months. There was an infiltrating tumor at the inner side of the right breast about the size of a walnut, the skin over it was puckered, and the breast appeared to be adherent to the pectoral fascia. No apparent enlargement of axillary glands. A diagnosis of carcinoma was made. On June 28 breast and contents of axilla were removed, and as the tumor was adherent to the pectoral fascia the greater part of the muscle was removed. She left the hospital July 8. The Clinical Research Association reported: "This section consists of young inflammatory tissue, in which are embedded a few typical gray tubercles and areas of caseation. The lesion is evidently due to tuberculosis." In February, 1901, the patient was perfectly well.

Chronic Mastitis.—There is a class of case, chronic mastitis, in which a real difficulty of diagnosis exists. It is a form of lobular induration of the breast met with most often at the menopause, but may occur at almost any age. It is particularly interesting in view of the question raised as to such a condition becoming ultimately carcinomatous. Some of my cases go to support this view, but clinically it seems at times to be impossible to distinguish between early simple induration and that caused by cancer invasion. In these cases examination with the flat hand is all important, areas of indura-

tion resembling carcinoma felt on pinching up the breast disappearing when the hand is laid flat on it; and in true chronic mastitis there is want of a circumscribed boundary. It should be remembered that in chronic mastitis the axillary glands may be enlarged and tender. These are the cases that do so well under treatment, and I am skeptical enough to think that they account for a good many of the so-called cures of cancer by medicine. I have notes of three cases only which can be legitimately called chronic mastitis, of which the following is an example:

Mrs. B., aged thirty-eight, was seen November, 1897, having lately had gynecological treatment. A month previously she had receive a blow on the left breast which remained very painful, and she found a swelling at the axillary border of the gland. She was very anxious about herself, as an aunt had died from cancer. The breast was tender at its axillary border, and there was some induration; both nipples were retracted. She improved in two weeks after being ordered phytolacca, under which all induration disappeared. She was examined nine months later, and the breast was quite well, and she had remained free from breast trouble up to 1901.

The next two cases will repay careful comparison.

Miss E., aged forty-seven, was seen in February, 1897, complaining of a rapidly-increasing painful swelling in her right breast. She had been, by Dr. Moir's advice, taking phytolacca and using it locally. The upper third of the right breast was indurated, and in the center seemed an area of softening. There were enlarged glands in the axilla, right up to the clavicle, and the breast did not move freely over the pectoral muscle. The patient had lost flesh. A diagnosis of a soft, rapidly-growing carcinoma was made. The breast, axillary contents, and the costo-sternal portion of the pectoralis major muscle were removed. The microscope showed extreme fibrosis of glandular tissue with lobular mastitis and moderate dilatation of the smaller ducts. There was no evidence of malignancy. The patient married a year later, and is well at the present time.

Laura R., aged forty-five, was admitted into Durning September, 1896, for a slowly-growing tumor of the left breast of twelve months' duration. There was an irregular tumor about the size of a pigeon's egg infiltrating the upper part of the breast; the skin was not involved, but the axillary

glands were enlarged. Before removing the breast a preliminary incision was made into the tumor, and as it presented all the clinical characteristics of carcinoma, the breast, costosternal portion of pectoral muscle and contents of axilla were removed. The growth extended to the pectoral fascia. The Clinical Research Association pathologist reported that the section had the character of lobular induration—the lobules being imbedded in fibrous tissue, this tissue having invaded the lobules themselves. There was no evidence of malignant disease. She was seen in December, 1898, two years later, when there was very definite and somewhat extensive recurrence in the pectoral muscle at the apex of the scar, so much so that a secondary operation was considered inadvisable. The microscopical diagnosis was subsequently confirmed by Dr. James Johnstone. Before deciding that this case was not malignant when operated on we have to bear in mind that in making a microscopical diagnosis it is rarely that the whole of the breast is examined, a small portion being usually selected by the eye, cut out, and hardened. It is therefore possible for the carcinomatous deposit, if only in an early stage, to be missed.

Fibro-Adenoma.—We have next to consider what are known as innocent tumors of the breast, and of these I have only examples of the variety known as the fibro-glandular tumors, or fibro-adenomata. Their characteristics are: their appearance in early maturity, their slowness of growth, and that they are dense, lobulated, and encapsuled. Fibro-adenomata, however, may undergo cystic degeneration from mucoid change or duct obstruction. There are notes of thirteen cases, five occurring under thirty, five under forty, two under fifty, and one under sixty years of age. Twelve of these were simple fibro-adenomata, of which eleven were removed by enucleation. They were firm, lobulated encapsuled tumors, and as far as I can learn have never recurred. Four cases require more special mention.

Mrs. H., aged thirty-five, had had a small tumor in her left breast since twelve years of age. At her first pregnancy the tumor enlarged. At her second confinement the tumor increased rapidly and reached the size of a pigeon's egg. The tumor was now removed and consisted of a small adenomatous mass with a large thin-walled cyst containing "clotted cream-like" material. The microscope showed it to be an adenofibroma which had undergone cystic degeneration in parts.

Ellen D., aged fifty-three, in Durning, November 26, 1898, had noticed the tumor two years previously. There was a large, smooth elastic tumor in inner half of left breast; the skin was not involved, and the axillary glands were apparently not enlarged. On exposing tumor at operation it was found to be of a soft vascular nature, and the whole breast, pectoral fascia, and contents of axilla were removed. On further examination the tumor was found to be encapsuled; on section there were numerous cysts of varying size and smooth walls; these cysts were packed tightly with thick villous projections of considerable size. The Clinical Research Association reported the tumor to be a cystic fibro-adenoma. The cysts were filled with polypoid intracystic protrusions of the stroma. Many of these protrusions were very cellular and traversed by small vessels, but there is no proof of malignancy, and the nature of the tissue is like that of a soft fibroma. She left the hospital on December 25. In February, 1901, she was in good health and had no recurrence of the growth.

Fibro-adenoma was observed once in a man. In 1892 I saw a gentleman who complained of a tender left breast which had an indurated nodular feeling, and for which he had been taking phytolacca. The condition was considered to be a chronic mastitis. He saw several surgeons, the consensus of opinion being for removal. The breast was amputated. The microscopical section was pronounced to be a fibro-adenoma undergoing myxomatous changes in parts. He was quite well nine years later.

Carcinoma appears to follow in the footsteps of almost any pre-existing mammary disease, so that it is very difficult, as I have before said, to satisfy one's self whether there is any actual stage of transition from an innocent to a malignant tumor. Though opinions on this subject are various there is enough evidence to show that benign growths do at times take on a malignant character, but this does not occur frequently enough to state that such growths are specially prone to develop into malignant disease. That they may do so should always be borne in mind. I have mentioned an interesting case when referring to chronic mastitis, and would now draw attention to two cases where scirrhus carcinoma developed in a fibro-adenoma.

Anna W., a woman aged sixty-five, was in hospital in Sep-

tember, 1895. She had had a small tumor in the right breast for twenty-five years, but lately it had increased in size. The tumor was hard, irregularly lobulated, and freely movable, it having all the characteristic of a fibro-adenoma, the only unusual point being that the skin over it was slightly adherent. The tumor was enucleated and the overlying portion of skin freely removed. The microscope showed the tumor to be a scirrhus carcinoma. Most unfortunately, I have been unable to trace the subsequent history of the patient.

A somewhat similar case was seen in 1896.

Caroline P., aged forty-three, was in hospital in October, 1896, for a painless, slowly-growing tumor of thirteen months' duration. At the upper and extreme outer border of right breast there was a hard, lobulated, freely-movable tumor. The skin was not adherent, and the rest of the breast was healthy. There were no enlarged glands in axilla. A diagnosis of fibro-adenoma was made and the tumor enucleated. The Clinical Research Association reported the tumor to be a scirrhus carcinoma with a large amount of stroma. She was seen in February, 1901, when she had a sound healthy scar and breast.

Cystic Disease.—The next group of cases to which I wish to draw attention is that of cystic disease and cysts, arising independently of any neoplasm. I have notes of twenty-five cases. Single cysts are said to be very rare, yet eleven of the cases under observation were found to have a solitary cyst, but in some of them there were found as well intracystic growths. Single cysts are of peculiar interest because they so often lead to an error of diagnosis; a deeply-seated tense cyst bearing a great resemblance to a carcinoma. They scarcely ever, however, cause any dimpling of the skin. In two cases of single cysts the breast was amputated under the impression that a carcinoma had to be dealt with. To aid in making a diagnosis I have no hesitation in exploring with a sterile hypodermic syringe. If fluid is withdrawn the diagnosis is assured, and in some cases the emptying of a cyst seems to effect a cure.

Mary Ann B., aged forty-six, was admitted into Quin Ward, July 30, 1888. She was married, and at the birth of her only child, nine years ago, had a good deal of trouble with her

breasts. Five weeks before admission she noticed a small lump in the left breast, which had not increased in size or given pain. In the left breast, just above the inner side of the nipple, was a small, hard tumor about the size of a hen's egg. It was not tender. It was slightly lobulated, and in the breast tissue itself. The skin was freely movable over it, and there was no retraction of the nipple. As some doubt was raised as to an exact diagnosis, an exploratory incision was instituted next day, and a dense, white, hard tissue being cut into, the growth was thought to be scirrhus, and the breast was therefore amputated. No enlarged glands were found. On examining the breast after removal, it was found that the dense tissue was really the immensely thickened wall of a centrally situated cyst, and that there were many small cysts scattered through the breast tissue. The patient made an aseptic recovery, and was discharged August 14 well. The microscopic section showed cystic disease of breast.

Elizabeth T., aged forty-two, was admitted into Ebury on June 10, 1892. In the preceding February she had accidentally discovered a small lump in her breast, which increased in size in spite of medicine and ointment. In the upper and outer segment of the breast there was a fairly smooth tumor about the size of an egg; it was situated in the breast tissue itself; the skin was not involved, and there were no enlarged axillary glands. An exploring needle was used and it seemed to enter a very hard nodule; no fluid was withdrawn. A diagnosis of carcinoma was made, and breast amputated on June 13. On dissecting it off the pectoral muscle a cyst on the under surface of the breast was opened and a considerable quantity of clear yellow fluid escaped. When examined there was found to be a large cyst with thin, smooth lining membrane. Its upper wall was thick and hard, but its under surface was very thin indeed and was connected with the pectoral fascia. The wound healed under one dressing, and the patient left the hospital June 24.

The nomenclature of diseases of the breast is most puzzling, some authorities grouping cases under one head, some under another. Take, for example, villous papilloma; some would put these in a group by themselves, others place them under cysts and cystic diseases. I have done the latter. The cysts, which may be solitary or multiple, contain a villous papilloma or an intracystic growth. An important diagnostic sign in these cases is an exudation of fluid, usually blood-stained or brownish in color, from the nipple. This was noticed in five cases, and in each the cyst contained an intracystic growth.

It is not necessary, unless the disease be multiple, to do more than freely remove the cyst. This was done on ten occasions. It is preferable, I think, to incision and plugging the cavity, or injection of the sac. When the disease, either as small simple cysts or cysts with intracystic growth, is general, amputation of the breast becomes necessary. This was done eight times. Three of the cases will repay individual study. The first from the extreme age of the patient; she was the oldest breast case, and nearly the oldest patient, upon whom I have operated.

Eliza P., aged eighty-four, was admitted on April 25, 1896. About forty years previously she noticed a soft lump in her right breast, about the size of a walnut. This had very slowly increased in size. There used to be a milky discharge from the nipple; this became sanguineous eight or ten years ago. Six weeks before admission the breast became red, more swollen, and tender. There was, when examined, a large swelling, occupying the whole of the right breast, freely movable over the deeper structures. The skin was red, and adherent to the tumor; in parts it was a purplish color. The nipple was retracted. Fluctuation was evident in parts of the tumor. There were enlarged glands in the axilla. On April 28 a rapid operation was executed; the breast, pectoral fascia, and contents of axilla being removed. Though no supuration followed the operation the wound gaped a little, and repair was delayed. The mental condition of the patient gave some anxiety; she became restless, semi-delirious, and childish, but subsequently made a good recovery. The tumor consisted of numerous cysts filled with pendulous villous protrusions. In parts they were of a dark spongy nature; in others like bunches of small grapes. Dr. Johnstone reported the tumor to be a villous papilloma. She was known to be living two years after the operation.

Caroline B., a married woman, aged forty-five, was in Durning Ward January, 1898. Five years previously a swelling appeared in the left breast; fifteen months before admission it was tapped, and disappeared, but it soon filled again. There were two small fluctuating swellings in the left breast, which was not itself indurated; there was a large irregular fluctuating cyst on the right side; the whole breast seemed to be full of small cysts. On February 2 six thin-walled cysts, containing an opaque green fluid, were removed from the right breast, and two from the left. She left the hospital February 18. She was readmitted April 8, 1899, with a large

tense cyst in axillary lobe of right breast and many smaller ones scattered over breast. On April 11 an incision was made over the large cyst; the breast, however, seemed so generally cystic that it was amputated. On section the whole breast was riddled with cysts, varying in size from a pea to a bantam's egg. She left the hospital April 28. In February, 1901, she was in excellent health, with a normal scar.

Sarah W., aged forty-six, was in Durning Ward, November, 1900. For ten years she had had a watery discharge from the left nipple, but she had only noticed the tumor a few years. Two years previous to admission a sore formed, which had never healed. There was an ulcerated tumor on the outer side of and involving nipple; it was movable over chest wall. It projected above the skin, and in parts had a rolled-over edge. Most of the surface was depressed, with healthy granulations; from the bottom of a depression clear fluid exuded. The breast was removed, together with contents of axilla. The growth was seen to consist mainly of a large cyst; the cyst wall was thin, and the cavity was packed with a soft papillomatous intracystic growth. There was no infiltration of cyst wall or tissue around. The tumor was accidentally thrown away before a microscopic section was made. She left the hospital December 7.

In one case a solitary thin-walled cyst appeared first in one breast, and was removed; a second appeared later in the other breast, and was also removed.

Ann K., aged fifty-two, was seen in May, 1897, for a tumor of the breast of three months' duration. In the upper and outer lobe of the left breast was a soft fluctuating swelling, size of a bantam's egg. A large, thin-walled cyst was removed; there was no intracystic growth. The microscope showed no malignancy. In October, 1898, a very thick-walled cyst was removed from the right breast. The microscope showed the cyst to be due to dilatation of ducts, and there was no malignancy. Patient keeps well in February, 1901.

It is refreshing to turn from the purely surgical treatment of these diseases to the medical. My next three cases illustrate the effect of medicinal treatment of cysts. Some of the cases operated on had been submitted to medical treatment, but with no such conspicuous success.

Mrs. K., aged fifty, was seen April, 1898, having acci-

tally discovered a tumor in her right breast three weeks previously. In the center of the breast was a soft fluctuating swelling about the size of a bantam's egg; no general induration of breast; no enlarged axillary glands. A diagnosis of cyst was made, and she was treated by Dr. Pullar, who reported that the tumor entirely disappeared after taking *phytolacca* 1x.

Mrs. S., aged sixty-four, was sent by Dr. Andrew Neatby, December, 1898, for a tumor of the left breast, noticed only a few weeks. In the center of the upper part of left breast, deeply situated, there was a tense cyst. The hypodermic needle drew off brown turbid fluid. She was put upon silica, and Dr. Neatby reported later that, after taking it some time, the tumor completely disappeared, and there has been no return to date—February, 1901.

Mrs. F., aged forty-eight, seen November, 1899. Twelve years before she had cystic disease of the left breast, and saw Dr. Dyce Brown, Sir James Paget, and Mr. Nunn. She was treated by the former for twelve months, and got quite well. Six weeks ago she discovered a tumor in her right breast; she had been taking *ars. iod.* and *hydrastis*. The tumor was increasing. In upper portion of right breast was a tense globular swelling (fluctuating), size of pigeon's egg; rest of the breast healthy; a few minute cysts were formed at upper and outer edge; she was submitted to treatment, and in February, 1901, patient's husband reported there was no tumor present.

Before leaving the subject of cysts I might refer to galactoceles—cysts containing degenerated milk products; they originate during pregnancy or lactation. Reference has already been made to one case associated with a fibroadenoma. The following case exemplifies most of the points in a case of galactocoele:

Mary E., aged thirty-eight, was admitted into Durning August 2, 1890. She was a multipara, her last confinement having taken place nine months previously. She had nursed her baby for five or six months, but not from the left breast, as the milk did not seem to flow easily, when she noticed a small swelling on that side breast. She came to the hospital and an exploring needle was inserted and a milky fluid was withdrawn. When admitted there was in the upper and outer quadrant of the left breast a swelling the size of a hen's egg. It was freely movable on the subjacent tissue, but the skin over it was adherent, and at one spot it was red and angry looking. The tumor was circumscribed and well defined and

fluctuated. Milk could be made to exude from the nipple. There was no pain, and no enlarged glands in axilla. The swelling had rapidly increased in size. Under chloroform the tumor was incised, and a small quantity of bloody serum escaped. In the tumor was found a quantity of whitish caseous material which was removed with Volkmann's spoon. The cysts was rubbed with iodoform and a drainage tube inserted. Patient left the hospital well, August 14.

Paget's Disease.—I have only one case of Paget's disease of the nipple to record. The more modern term, and one perhaps better describing it, is "dermatitis maligna." It appears at first as a chronic eczema of the nipple, but ends as a cutaneous carcinoma, but the nipple is not always destroyed as in this case.

Martha P., aged sixty-four, in Durning February 19, 1898. She was a widow. Two years previously she had noticed a small excoriation about the left nipple which had gradually spread until it had reached its present condition. At the side of the left nipple there was an oval patch of superficial ulceration about the size of a four-shilling piece; it was of a florid red color, raw and excoriated; the edges, which were defined, were slightly raised and indurated, but not so all around the area; the surface secreted a viscid purulent fluid; the breast beneath seemed free from all induration. There were enlarged axillary glands. On February 22 the affected area was widely and deeply removed, as well as the enlarged axillary glands. She made a rapid recovery and left the hospital March 16. The Clinical Research Association reported "the axillary gland is infiltrated with scirrhus carcinoma. The section of the nipple shows the changes due to Paget's disease. There is much inflammation of the corium and down-growths of epithelium are seen in the subcutaneous tissue." When she left there was no induration in either the breast or axilla. She died twelve months after the operation. There does not appear to have been any local recurrence, but she sank after an illness with abdominal pain, sickness, and diarrhea. In this case, although the axillary glands showed carcinomatous infiltration, the mammary gland itself does not seem to have been affected. In "Paget's disease" we have a problem to solve: Is the disease malignant from the beginning, or is there a transition from the benign to the malignant? Many cases have been recorded where local treatment directed to the eczematous condition has eventuated in a cure, but when the case resists treatment then operative interference is necessary.

On another occasion I should remove the breast as well as the affected nipple area, as being a safer proceeding than local removal.

Sarcoma.—Midway between the adenomata and the carcinomata histologically appear the sarcomata, and much confusion exists in discriminating between them when elements common to both are met with in the same tumor. I have only seen three cases of what I have considered to be pure sarcoma. The cases are not common, so I give them in full.

Amy B., aged forty, was admitted into Ebury Ward March 20, 1889. She gave birth to one child fifteen years ago.

Six months previous to admission patient noticed a small white lump on the inner side of the right nipple, which gradually increased in size, and about January it began to get red and painful, and lately the whole breast had become much harder. When admitted the right breast was large, hard, and full, the skin being red, brawny, and glossy. The whole breast seemed involved in the growth, and it was partially adherent to the pectoral muscle. The outline of the breast was quite regular, with the exception of a movable nodule on the outer side. At the inner side of the nipple there was doubtful fluctuation. There was pulsation in the breast, which, although occurring to a certain extent in the tissues around was due to the vascularity of the growth. There were some enlarged glands high up in the axilla. She was given phosphorus 3x in alternation with belladonna ϕ , and a small exploratory incision made, but the case not appearing suitable for operation and not improving under treatment she was discharged May 1, 1889.

Mary W., aged twenty-two, was admitted into Ebury June 19, 1891, for a tumor of the left breast of thirteen months' duration. It began as a small, hard lump, accompanied with some pain. It grew slowly at first, but for the past two months it had increased very rapidly and become much more painful. She was a well-nourished, healthy-looking girl. The left breast was much enlarged, the enlargement being most marked outside the nipple. The skin over the tumor was shiny and darker than normal and slightly oedematous; the veins were well marked. The nipple was retracted. The breast felt heavy and solid; the skin over the surface was fairly freely movable, and the whole mass moved perfectly freely over the pectoral muscle. The mass, which was chiefly outside the nipple, was rounded and somewhat lobulated, and was of an elastic character. The axillary glands were enlarged. She

was ordered phytolacca and watched. There was no rise of temperature. On June 30 an exploring needle was used, but nothing but thin blood was removed. On July 8 the breast was removed. The tumor was of a yellowish-white color, rather tough and of uniform consistence; it contained no cysts. No microscopic result is attached to the report. The patient left the hospital well on July 27.

Susan O., aged fifty-five, was admitted into Ebury September 6, 1890, for a tumor of the left breast of two and a half years' duration, which gradually increased until in May, 1890, it broke through the skin and fungated. There was no family history bearing on the case. When admitted there was a large fungating swelling involving the greater part of the left breast, which was freely movable over the adjacent parts; the mass bled easily and had sloughs in parts, and there was much foul-smelling discharge. The skin around was red and oedematous. There were enlarged glands in axilla, one being of considerable size. On September 9 the breast and contents of axilla were removed, some of the wound being left to granulate. The operation was followed by some suppuration. She was discharged with the wound all but healed on October 21. On December 15 she was re-admitted with some recurrence in the axilla, which was removed, and she left January 5. A microscopical diagnosis of round-celled sarcoma was made.

Carcinoma.—Eighty-seven, or more than half the number of cases under revision, were found to be suffering from carcinoma in one or other of its forms. Consideration of carcinoma mammæ in its entirety would occupy so much time that I shall confine myself to a few points only. The greatest number, as might have been expected, occurred between the ages of forty and sixty. The following table gives the number at the various decades:

Between 20 and 30.....	3 cases.
“ 30 “ 40.....	9 “
“ 40 “ 50.....	27 “
“ 50 “ 60.....	27 “
“ 60 “ 70.....	18 “
“ 70 “ 80.....	4 “

The youngest case seen was in a single woman, aged twenty-seven, who was admitted into Quin in 1894 for a rapidly-growing tumor of the right breast of nine months' duration. Breast and contents of axilla were removed. A mi-

croscopic diagnosis of scirrhus was made. In July, 1896, she was readmitted with recurrence in the pectoralis major muscle, which was removed. Two years later Dr. Roche reported she died with general carcinomatous infection.

In another case a married woman, aged twenty-nine, with no children, was admitted into Durning, in 1895, for a two months' tumor of left breast. A large infiltrating tumor occupied the upper and inner segment of breast; the skin was adherent over it. The axillary glands were enlarged. The patient was subject to asthma and bronchitis. On October 8 the breast and axillary contents were removed. Her chest gave her a good deal of trouble after the operation, union being delayed by some sloughing of the edges of their tense flaps. She left the hospital November 9. The microscope showed the tumor to be a carcinoma with considerable amount of fibrous tissue. Her subsequent history cannot be traced.

Out of the eighty-seven cases of carcinoma of which I have notes, seventy-two were submitted to operation.

They may be tabulated as follows:

Well 3 to 13 years after operation.....	13 cases.
Well under 3 years after operation.....	12 "
Recurrence after 3 years after operation..	1 "
Recurrence under 3 years after operation.	31 "
Not traced.....	14 "
Died.....	1 "

One may reasonably ask what are the practical results of this not inconsiderable operative work. Has it prolonged life or cured the disease? Before answering this one must try to arrive at some conclusion as to what is the prognosis of carcinoma if left alone. No one can have seen much of this disease without at once realizing how difficult it is to satisfactorily answer this important question. Certain cases of the atrophic form may continue for many years, but taking the general run of cases four years seems to be the average duration of life. Some put it considerably less. My own figures are too small to be of any value. I have not felt myself justified in advising patients to submit to any prolonged medicinal treatment, but rather to submit with as little delay as possible to operative interference. I have notes of two patients whom I saw with early carcinoma and for whom I advised operation, which was declined. They both subse-

quently received continuous homeopathic treatment under the advice of good men, but when seen at the end of a year the disease had made such serious advance that a fatal termination could not be far off and operation was entirely out of the question. However, side by side with these I should place the following:

In 1896 Margaret L., aged fifty-two, was admitted into Durning for a tumor of the left breast of ten months' duration. The growth appeared to be a typical carcinoma, but beyond the area of the breast were some small secondary nodules in the skin, and the axillary glands were enlarged. One of the skin nodules was removed and examined microscopically and found to be a carcinoma. The case therefore was considered to be too extensive and far-reaching for any operative interference. Dr. Epps reported that five years later the patient was living and that the local condition had changed very little.

I have been able to trace the subsequent history of fifty-seven patients operated on for carcinoma. Of these thirteen were well and free from any sign of disease at periods varying from three to thirteen years after the operation, or nearly twenty-five per cent. of the known cases. It is not so many years ago that most pessimistic views were held by the most experienced surgeons as to the value of the removal of the breast for cancer; fortunately, with the revival of earlier and more complete operations, the chances of a permanent cure are rising. In all cases but three I can adduce positive evidence as to the correctness of the diagnosis, and in these the result of the microscopic examination has been mislaid. Out of the seventy-two operations the microscopical diagnosis is entered in the notes in forty-seven cases, but it does not follow that no microscopic examination was made in the remaining twenty-five. Resident medical officers, I find, are not always as careful as they might be in entering such details, which are usually supplied when the case is convalescent and in some cases after the patient has left the hospital. I have fortunately been able, by careful search, to supply the deficiency in several cases. In seven cases, where no entry of the microscopic examination had been made, subsequent recurrence verified the clinical diagnosis.

1 case was well 13 years after operation.

1	"	"	12	"	"	"
2	"	"	7	"	"	"
3	"	"	5	"	"	"
2 *	"	"	4	"	"	"
4	"	"	3	"	"	"

13 cases.

3 cases were well 2½ years after operation.

4 cases were well 2 years after operation.

5 cases were well under 2 years after operation.

12 cases.

Among the cases of patients living and free from disease over three years after the operation are some that have been submitted to second operations, and are worthy of brief mention.

In March, 1889, I removed the breast of Mrs. S., aged fifty, for a small scirrhus tumor of the right breast; no note appears to have been made of a microscopical diagnosis; but in 1896, seven years afterward, she consulted me on account of a large, hard gland in the right axilla, evidently malignant. This together with the axillary contents were at once removed, and she remains well to date. Microscopically the gland was found to have undergone extreme fibrosis, but at one part there was a zone of typical scirrhus carcinoma.

The following cases also had a recurrence successfully removed:

Louisa P., aged fifty, had her right breast amputated in June, 1894, for a tumor of four months' duration. A microscopic diagnosis does not appear to have been made. In May, 1897, two nodules in the scar and glands in the axilla were removed, which the microscope showed to be scirrhus carcinoma in the subcutaneous tissue spreading forward toward the corium, the skin not being actually invaded. In February, 1901, the patient was quite well and free from recurrence.

Mary Ann A., aged fifty-six, in November, 1897, had her left breast, costo-sternal portion of pectoralis major muscle

* One of these died of bronchitis without any recurrence.

and axillary contents removed for a tumor of six months' duration. Macroscopically the tumor was a typical scirrhus, but no record has been kept of the microscopic appearance. In five months a small recurrent nodule appeared in the axilla; this was removed. In February, 1901, the patient was perfectly well.

The following is the interesting case of recurrence in the opposite breast:

In 1894 I removed the right breast of a woman, aged forty-three, for a slowly-growing tumor of twelve months' duration with enlarged glands. A year later a similar tumor appeared in the opposite breast, but she declined operation and placed herself under the Mattei treatment. The disease slowly extended, and she died in four years (1899) with a large fungating tumor. But the side operated on was, up till her death, quite free from any recurrence.

The following is an interesting case showing the importance of a microscopical examination of a supposed recurrence:

In 1896 I removed the right breast of a woman, aged fifty-three, for a typical scirrhous carcinoma, confirmed by the microscope. Two and a half years later she was re-admitted with a small, hard nodule at the axilla. This was removed and reported to be a simple epithelial implantation cyst which had developed in the scar of the old incision; there was no malignant growth.

Secondary or metastatic disease was observed in nine cases without any local recurrence; in five it was the spine, causing in some cases paraplegia, in others severe intercostal pain; once the disease appeared in the brain, once in the lungs and pleura, and once in the liver. In all but one of these nine cases death has already taken place—within a year of the operation in three cases, within two years in four cases, and within three years once. One case is dying of ascites due to secondary disease of the liver.

Local recurrence was found in twenty-five cases, either in or near the site of operation or in the supraclavicular glands. Four of these cases terminated fatally in a year, six within two years, and two within four years. Taking all the known cases of metastatic disease and local recurrences, thirteen were

recorded within the first year following the operation, fourteen within the second year, five within three years, and two after three years. A good many cases of local recurrence were submitted to secondary operations and three of these seemed to have been permanently cured, as the patients are alive and well, seven, six, and four years respectively after the secondary operations. These figures show that if the disease is going to recur it will usually do so within the three years' limit which has been empirically set as the point of cure, though that this cannot be accepted as accurate some of my cases show. Still every patient that is alive and free from disease three years after the operation has an exceedingly good chance of being free from future recurrence.

All cases of reappearance of the disease either local or general are as follows:

13 cases appeared within 1 year.

15	"	"	"	2	"
5	"	"	"	3	"
1	"	"	"	4	"
1	"	"	"	7	"

Fortunately one can speak with some confidence as to the mortality of the operation. The breast has been amputated eighty-four times, seventy times for carcinoma, twice for sarcoma, eight times for cystic disease, twice for cystic fibroadenoma, and once for mastitis, and once for tubercle. In nearly every case undertaken for malignant disease the axillary contents and pectoral fascia were removed with the breast, and for some years past the costo-sternal portion of the pectoralis major muscle has been removed as well. Of these eighty-four patients only one died, and that curiously enough the last of the series, from an inexplicable pyæmia. None of the patients were ever seriously ill and the majority of them healed under one dressing. Convalescence in some cases was delayed owing to the impossibility of bringing the edges of the skin together, and so repair had to take place by granulation. In suggesting operation we can eliminate any serious danger from it per se, however extensive it may be. The most serious element in it is the nature of the disease for which it is undertaken.

An analysis of 153 consecutive cases of diseases of the breast:

Carcinoma	87
Cysts and cystic disease.....	26
Fibro-adenoma	13
Mammary abscess.....	13
Hypertrophy	4
Sarcoma.....	3
Tubercle.....	3
Chronic mastitis.....	1
Paget's disease (dermatitis maligna)...	1
	<hr/>
	153



DISEASES AND INJURIES OF CHILDREN.*

BY JOHN M'LACHLAN, B. A. (OXON.), M. D. (EDIN.), F. R. C. S.
(ENG.).

A few weeks ago I had to treat a number of cases of a peculiarly obstinate form of diarrhea, or perhaps dysentery would be the more applicable word—understanding by the term “dysentery,” “frequent, and for the most part small, discharges from the rectum of blood or of mucus, or of both, with colic pains, tenesmus, and fever. Clinically, I am not sure that the distinction between the two words diarrhea versus dysentery is of much importance; however, that is by the way. So far as the general symptoms were concerned most of my cases were alike. They began with frequent, very watery stools of various colors, rapidly becoming green, with much slimy mucus, and in most of the cases a good deal of blood; accompanying these symptoms there was great prostration, thirst, elevation of temperature, and considerable pain. It seemed, too, to be infective, for in one household alone it attacked, one after the other, twelve members—eight children, the mother, and three servants. It would serve no useful purpose to go through each of these cases in detail, and I there-

* Homeopathic Review.

fore single out one of the children, a little girl of about four years old, as the most instructive.

I. DIARRHEA.

She had the usual green, slimy, and frequent stools, mixed with blood, together with great thirst, prostration, and, latterly, vomiting of everything she took. I put the case down as a probable example of the "gastro-intestinal" variety of influenza, and still believe that the whole of the cases were of the same character. During the first three or four days I tried various remedies which seemed to be "indicated" by the symptoms of the case, notably merc. sol., verat. alb., and baptisia. About this time vomiting began, and, further, the mother informed me that the stools were passed involuntarily, and not only so, but also unnoticed by the child, i. e., the child did not know they had passed. This decided me to give arsenicum, which I did in the 3x potency (trituration). The first dose stopped the vomiting, and she had no more stools for eight hours, when she passed a very copious, foul, black stool, accompanied with extreme prostration. (I have noticed this peculiarity in the action of arsenicum in the case of diarrhea once before—the prompt stoppage of the diarrhea followed in about eight hours by a discharge like the above.) From this time onward the recovery was uninterrupted. But though the arsen. was so successful in this case, it totally failed in all the other eleven cases in this house, with the exception of one child two years old, where the cure was prompt and complete.

I imagine that nine out of every ten readers of this paper will think, if not say in so many words, "What a fool! Why didn't he try arsen. sooner?" It certainly was not that I did not think about it, for it was in my mind every day and all day. But, somehow or other, from reading, or rather misreading, the experience and teaching of the past (the "old brigade"), I had a rooted conviction that arsen. was not likely to be of great service in green diarrheas. Now, so far as green, watery diarrheas are concerned, this is probably correct, but it does not apply to green diarrheas containing much

slime or mucus, and which are further in all probability distinctly microbic in origin.

It might be useful at this stage to give a short review of a few of the medicines likely to be useful in involuntary diarrheas. In this class arsen. is the one most frequently called for, and with this remedy the stool is both involuntary and unnoticed.

In phosphorus and phosphoric acid it is passed with a sensation as if wind were about to escape. Staphysagria is very like this also.

Veratrum has unnoticed evacuation with the escape of wind.

Nux moschata has the same symptom in typhoid fever.

Arnica has involuntary evacuations at night in sleep.

Belladonna, hyoscyamus, and laurocerasus have involuntary stools, apparently from paralysis of the sphincter ani. Rhus tox. has a somewhat similar symptom.

In sulphur the stool escapes suddenly and without control; the patient has hardly time to leave the bed.

I believe that many of us—especially those generally regarded as “country” practitioners, among which class I am proud to regard myself as a humble member—are inclined to use our own, more particularly homeopathic, preparations of arsenicum and those of the opposite school (*diversa schola*) interchangeably, more especially Fowler’s solution. This solution is made by boiling arsenious acid and carbonate of potassium in water, and Mitchell Bruce adds, “It is doubtful whether any decomposition occurs.” If this be so, then the “liquor” is simply a mixture of arsenious acid and carbonate of potassium in water. Now the curious fact is that in the case above recorded I tried Fowler’s solution before I used our own 3x trituration, and found it absolutely useless, for which reason I think it is very likely that decomposition does occur, and that what we are dealing with is really a solution of arsenite of potassium in excess of carbonate of potassium. But when we turn to the use of the liquor as a “cardiac tonic” or as a hæmatinic, the case is altogether different, and we have only to look at the pathogenesis and clinical history of our own kali carbonicum for at least one explanation of this difference, and to couple this with the further well-known physi-

ological fact of the affinity of potash salts for muscle and for red blood corpuscles.

In support of my contention that decomposition does very likely occur between arsenious acid and potassium carbonate, I may mention that Penot's method for the volumetric estimation of the "available" chlorine in bleaching powder depends upon this fact. A standard solution of potassium arsenite is first prepared, the only differences being that potassium bicarbonate is used instead of the carbonate, and further, that the solution is not boiled, but only warmed gently, because if boiled some of the bicarbonate would be transformed into the carbonate, and this is found to interfere seriously with the "end reaction"—between the iodine and starch which have to be used in a further stage of the same operation.

II. BRONCHO-PNEUMONIA ("CAPILLARY BRONCHITIS").

One forenoon I was called to see a baby six weeks old. It had caught cold somehow or other, though it did not seem to be very ill; but the parents were anxious, having lost a child about a year and a half ago from a similar affection. Its nose was rather stuffy, and it had a slight occasional cough; nothing very definite could be discovered in the chest. Keeping in mind Dr. Hughes' favorite remedy in "capillary bronchitis" and "broncho-pneumonia," and looking upon the latter as the worst that could happen in this particular case, though there were no definite symptoms as yet, I left phosphorus, for surely a medicine that will cure the fully-developed disease will in all probability prevent the disease from developing; on this depends the doctrine of prophylactic medicinal measures. About 11 P. M. on the following evening I was sent for in great haste, as the child was said to be dying; and so far as one could judge it certainly seemed within a few hours of death. It was entirely unable to take nourishment, and its position was one indicative of extreme embarrassment of the respiratory movements, accompanied with the ominous in-drawing of the supra-clavicular fossæ, the lower ribs, and epigastrium during inspiration. So far as my own opinion was concerned, I looked upon the case as hopeless; but, nevertheless, I put about ten drops of the wine of antimony into

a wineglass of water and told them to wet its lips with this by means of a feather every fifteen or twenty minutes. Next morning the child was distinctly better, and the parents said that the first dose seemed to relieve the breathing, and the child was soon able to take a little nourishment. For some days the cough was very troublesome, but the recovery was rapid and complete.

It would seem that there are at least two distinct classes of cases of this nature, and, so far as I am concerned, I have most frequently met with the antimonium tartaricum class rather than with the phosphorus class, though I wish I knew how to distinguish the two in the early stage, i. e., before there is marked rattling of mucus, or the gradual disappearance of the cough without any decrease in the amount of mucus, both of which symptoms are markedly indicative of antim. tart., as are also drowsiness and the inability to suck for want of breath, the nose being at the same time unblocked.

I am quite ready to confess that my mode of using the above remedies—to give phos. first and then, as it did no good, to give antim. tart.—could hardly be called scientific prescribing. I hope some of our colleagues will tell us how to distinguish the indications for these two remedies in the early stage.

III. PNEUMONIA.

One morning I was sent for to see a little girl about six years old. She had been a little out of sorts for a day or two with symptoms of an ordinary cold; but there was no rise of temperature, nor could any signs indicative of commencing bronchitis or pneumonia be detected in the chest. She was playing with her books and toys in the usual manner. I left orders that she was to be kept in her room all day, but did not think it necessary to send her to bed. Quite suddenly toward evening she became very ill, breathing very rapid and short, frequent short cough, and a temperature above 104° ; and at the base of right lung there was very distinct evidence of commencing inflammation. As was to be expected, she was delirious during the night.

During the first thirty-six hours I tried, in various potencies, aconite, bryonia, and phosphorus, but without any real improvement in the temperature or respiration, or in the symptoms of inflammation at the right base. I then noticed that the tongue, though thickly coated at the sides, had a red stripe down the middle, and on this indication I gave *veratrum viride* 2x, made from the ordinary allopathic tincture, the only preparation I could readily procure at once. It was given in frequent doses, and by night she was wonderfully improved in every respect.

A day or two afterward she pleaded so hard to get up, and, as the lungs had cleared up fairly well, I allowed her; she stayed up too long, however, and next day there was a slight relapse, which *veratrum viride* again controlled. She had other two slight relapses because a nurse of the old Gamp type, who does her nursing by the light of nature—which is usually gross darkness—gave her a bath without my orders, and again some days later gave her a dose of licorice powder. There was another curious symptom which I ought to mention: As she was recovering from the primary attack (not the relapses) every morning between five and six she had what appeared to be a very sharp attack of “fever,” flushed face, restlessness, and rapid respirations; at this time, too, the tongue showed a red triangle on the tip, and for these two reasons—the fever from 6 to 10 A. M. and the red triangle on the tip of the tongue—I gave her *rhux tox.*, which at once put an end to this morning fever. Later she got a few doses of sulphur, and still later a few doses of *nux vomica* to overcome the vomiting caused by the “licorice powder.” After that the recovery was uninterrupted and complete. On looking back on this case one wonders whether it was not an example of the intermittent pneumonia which Grisolles writes about, but in the present case there did not seem any reason to suspect malarial infection.

IV. WHOOPING COUGH.

I was called to see a child seven years of age, who was suffering from a well-developed attack of whooping cough. She had been suffering from this for about six weeks. She vomited

all her food, along with mouthfuls of thick, yellow mucus. She had a coughing spell every hour or so during both night and day, so that any comfortable sleep was out of the question. As there were no special indications I gave her *drosera* 3x, and asked her mother to note all the symptoms either before, during, or after the coughing fits. I called again two days after my first visit, but there was no material improvement in any respect. The mother now told me that during the cough the child became very angry and would strike her (the mother) if she attempted to do anything for her during the fit. On the strength of this symptom I gave *arnica* 200, three or four globules in water, a dose to be given after every fit of coughing. The following night she was able to sleep, the cough scarcely troubling her at all, and next day the improvement was very well marked; she had only one or two slight fits of coughing but no more vomiting. From this date the recovery was rapid.

Current Comment.

M. S. Bernheim, M. D.:

What course ought a practitioner to take in face of a pregnant tubercular woman? What advice can he give a woman predisposed, one with confirmed tuberculosis, one tainted by latent phthisis, of a woman formerly tubercular, but recovered?

Tuberculosis takes on too many clinical forms, its evolution is too variable, to admit of the adoption of the formula of Peter, which is, "Tubercular daughters, no marriage; tubercular wife, no maternity; tubercular mother, no nursing."

The general conclusions that we draw from a study of *pregnancy and tuberculosis* are:

Pregnancy does not fatally aggravate tuberculosis in those predisposed. Latent or ancient tuberculosis is not fatally re-awakened by a single, simple pregnancy. The younger the subject the greater the liability of pregnancy lighting up a

bacillary predisposition. From the very first indication, never allow a young woman to marry too soon in whom a general debility leads one to fear an ultimate bacillary invasion. Moreover, a long surveillance must be exercised before permitting maternity to a past tubercular subject with assurance of complete recovery.

The more extended and the deeper the tubercular lesions, the greater the aggravation by pregnancy. Death is almost certain in miliary tuberculosis.

If a single pregnancy may sometimes exert no bad influence on torpid tuberculosis, it is not so with repeated pregnancies, which are almost always disastrous even to the curable forms of phthisis.

The post-partum, the convalescence, are particularly trying to the phthisical, and the physician ought to exercise a very vigilant supervision. Everywhere and always lactation should be prohibited, because it is a source of fatigue and forfeiture.

In all cases in which the tuberculosis is aggravated from the first weeks of pregnancy, the physician is justified in producing abortion, employing all measures of asepsis and technique which render obstetric intervention inoffensive. This is, moreover, a procedure which has for many years been employed by German and English obstetricians.

The influence of a paternal tuberculosis on the course of pregnancy may be considered as nil.

Immediately after delivery it is necessary to take measures to shield the newborn from contagion; in surrounding it with the best hygienic conditions; in removing it from the bacillary focus where lie great chances of making it a solid and healthy subject.



Edward P. Davis, M. D.:

In seeking indications for *treatment of dystocia*, from coiling or occlusion of the umbilical cord, the situation of the placenta should be ascertained as nearly as possible before labor in each pregnant woman. A study of the fetal heart sound, the placental bruit, the uterine bruit, and the beating of the mother's aorta will enable the physician to recognize a murmur in the umbilical cord. If this can be plainly distin-

guished, it is excellent evidence that the cord is coiled about the child. In the absence of a murmur, tedious labor in which no other cause for delay can be assigned, recession of the presenting part between the pains, ceasing or slowing of fetal movements, and the sensation of pain referred to the body of the uterus form strong presumptive evidence that the cord is coiled about the fetus. In cases of coiling, the patient should be delivered as soon as possible and the use of forceps is justifiable.

Where, however, the cord murmur is absent, but recession of the presenting part, arterial hemorrhage between the pains, pain in the uterus, uterine inertia, and delayed labor are present, a cord anatomically or practically shortened is present. In such a case the use of forceps is not indicated.

The patient's labor pains should be stimulated, her strength maintained, the child delivered so soon as the head is born, and the placenta removed as soon as possible.

In knots or occlusion of the cord by amniotic adhesions, nothing can be done to save the life of the fetus. In the interests of the mother the uterus should be made to expel its contents so soon as fetal death is positively diagnosed.

♦ ♦

E. Gaulard, M. D.:

The treatment of *eclampsia* must depend upon the condition of the patient. If she is in a serious condition the uterus must be emptied of its contents; if, on the other hand, there is no cause for anxiety, a purely medical treatment—that is, treating the case by remedies—will be best. If the result desired is not then attained, labor can still be brought on if necessary. I do not hesitate to make the patient inhale chloroform if it seems advisable; this is contrary to the advice of Dr. Favre, who never gives it, as he thinks it aggravates Bright's disease. I not only find it does not increase the tendency to that disease, but that it prevents eclamptic attacks, although it does not arrest epileptic fits.

♦ ♦

A. H. N. Lewers, M. D.:

It is obvious that as the history is so important an aid to the recognition of an *extrauterine* *fetation*, especially in its

earlier stages, the difficulty in identifying this condition must be greatly increased if it occurs after irregular menstruation of long standing. Then the diagnosis must depend mainly on the physical signs and symptoms. The symptoms may not be very urgent or definite, and an encapsuled mass of blood in the pelvis, unless there were rapid changes in its size and shape, would be very difficult to differentiate from other pathological states. It is only very rarely that we can be sure under such circumstances that the mass felt is not of long duration. In the following case, for instance, I had no suspicion that the patient had an extrauterine conception.

Last August a woman was sent to me, forty years of age, married twenty years and with two children, the younger of them being eighteen years old. She was unhealthy-looking, and had complained of uterine discharge and menstrual irregularities for fifteen or sixteen years. She had been seized with sudden illness some weeks before I saw her, and on examination a big mass was found in the pelvis. When the febrile symptoms and pain with which she had been attacked had subsided she was sent up to see me from the country. There was a rounded tumor, filling Douglas' pouch, and fixed there. I thought from the history that it was probably an ovarian tumor which had become inflamed in consequence of twisting of its pedicle, or that there might be a large abscess in the left fallopian tube. I recommended operation, and found that the mass was a collection of encapsuled blood due to rupture of the fallopian tube.

In connection with the important evidence of the existence of an extrauterine fetation which is afforded by the expulsion of a deciduous membrane, it is well to remember that some women form and throw off a decidua with almost every period.

As to treatment, if a profuse hemorrhage is diagnosed, no avoidable delay in resorting to surgical interference is justifiable. Nothing else will save the patient, and she may be almost certainly saved by prompt removal of the affected tube. The question may arise as to whether the patient is too ill to be operated on, but the worse she is the more urgent is the need for arresting hemorrhage. The operation should, of course, be supplemented by saline transfusion, the two operations being performed as nearly simultaneously as possible.

When slighter hemorrhages occur, complete rest may lead to absorption of the blood and the patient may have no more trouble, but where there are evidences of repeated hemorrhages it may be better to operate and avoid the risk of further complications.

When the child is believed to be alive I consider the proper treatment to be to remove it by operation without delay. If the condition is diagnosed before the tube bursts the operation should be simple and safe, and there cannot be any object in waiting to see how much hemorrhage will take place or whether the pregnancy will go on to term. Later, if the fetus has escaped the dangers connected with the rupture of the fallopian tube, to delay in operating is still to wait to see if a worse thing will happen. Under any and all circumstances it seems to me that, so long as the embryo is alive, danger must increase, and the risks of an operation must become greater with delay, while there is no reasonable prospect of avoiding an operation altogether. The only circumstances in which I should be inclined to waver in advising immediate operation when the child is alive would be those in which a pregnancy had advanced to the end of the sixth or the seventh month and it was considered desirable to save the life of the child at some risk to that of its mother. If, however, I were to sanction delay under these conditions I should state very clearly that I considered the risk to the mother to be increased by the waiting, and I should leave to the patient and her relations the responsibility of deciding in favor of postponing the operation.

It has been recommended that at term surgical interference should be put off until after the child is dead, so that the placenta may die and the risks of hemorrhage may be avoided. Sometimes, however, the placenta may be easily removed by operation without loss of blood, if, for instance, it is mainly attached to the broad ligament and omentum. Undoubtedly difficulties from hemorrhage may be very great. Notwithstanding this, it seems to me that any advantage gained in making hemorrhage less likely by waiting till the child is dead will be fully counterbalanced by the extra risk of strong adhesions forming to the intestines in consequence

of the presence of a dead fetus and amnion among them. I have already pointed out that the living amnion and fetus seem to cause little irritation.

The advice to operate with all convenient expedition on every case of extrauterine gestation in which the child is believed to be living may not meet with universal approval. But I have no hesitation in urging that to watch a living fetus developing outside the uterus will in a very great majority of cases, if not in every case, expose the patient to greater risks than those of an operation.

♦ ♦

J. T. Schell, M. D.:

A lesson taught by obstetrical experience is (1) that *pseudocyesis*, or any of the so-called phantom tumors of the abdomen, can only be diagnosed correctly by a careful examination under an anæsthetic; and (2) that the ovarian disease present in these cases has in all probability a causal relation to the symptoms related. The literature on the subject, however, is very barren, and I can find no reference to any relation between pelvic diseases and pseudocyesis, which I am inclined to think three cases seen by me seem at least to suggest.

♦ ♦

Henry D. Chadwick, M. D.:

During the past year it has been my ill fortune to have had two pregnant women under my care who had *mitral insufficiency*, and both of whom died after delivery of the fetus. One was in the seventh month of her pregnancy, the other at the beginning of the ninth.

Two fatal cases of this sort have inspired in me a wholesome dread of mitral insufficiency in pregnancy. They have caused me to think that the only proper treatment of such cases is to watch the patient closely from the beginning, and when lack of compensation is shown by pulmonary congestion as manifested by cedema and persistent cough, it is not only justifiable but one's duty to his patient to advise and urge upon such an unfortunate mother the necessity of saving her own life by terminating her pregnancy as speedily as possible.

E. W. Clapp, M. D.:

As to *eye troubles connected with the albuminuria of pregnancy*: both albuminuric retinitis and uræmic amaurosis are rare conditions in pregnancy, but very important when they do occur. Albuminuric retinitis is a disease accompanied by immediate visible changes in the eyes. Albumin is always present in the urine. It may occur at any time during pregnancy, especially beginning during the first two months or after the sixth month. Its prominent symptom is gradual failure of vision. It is very apt to recur in successive pregnancies, though not necessarily. Blindness is almost never caused by the first attack, but more and more damage is done by each recurrence.

Uræmic amaurosis is a disorder of the visual apparatus not accompanied by immediate visible signs in the retina, although it may finally lead to atrophy. It occurs late in pregnancy, usually with other signs and symptoms of eclampsia, so that it seldom has to be considered alone. It apparently never destroys vision by the first attack. Like albuminuric retinitis it is very apt to recur in subsequent pregnancies.

The treatment of both conditions is the treatment of the albuminuria and non-use of the eyes, enforced by atropine and dark glasses, if necessary.

The prognosis of uræmic amaurosis as to sight is favorable for the first attack, and less and less so for each succeeding attack; but the importance of this is usually overshadowed by the uræmic condition present.

The prognosis of albuminuric retinitis as to sight is favorable for the first attack, if occurring after the sixth month, but grows worse if it recurs in succeeding pregnancies. Prognosis for sight is bad if it comes on earlier than the sixth month, especially if it begins during the first two months; and in these cases great danger to both child and mother may be expected from eclampsia.

As to abortion or premature labor, we are seldom called on to consider it for the preservation of sight alone, since so many and such grave dangers are present to both mother and child from uræmia. If we consider the preservation of sight a cause for premature labor, then it may have to be done in uræmic amaurosis recurring in successive pregnancies, with

progressive loss of sight; the degree of impairment of sight and the amount of damage done to the optic nerve deciding the question.

In retinitis albuminuria occurring early, abortion should be considered if the retinitis is of a severe type, especially if hemorrhagic, or if a slight retinitis progresses under treatment, remembering that in these cases the life of the child is uncertain any way, and the mother runs grave risks of eclampsia if the pregnancy goes on to term. In retinitis coming on after the sixth month it is best to wait and watch carefully, especially in a first attack, and not to induce labor unless some other albuminuric symptom demands it. In subsequent attacks the damage to vision and the severity of the retinitis may turn the scale in favor of premature delivery, even when slight eclamptic symptoms are present.

♦ ♦

Lucy Waite, M. D.:

Who has followed up for weary months a patient with abdominal fistula leading down to an infected ligature can appreciate the advantage of a method which allows the shedding of all ligatures during convalescence. I sometimes think that no one has a right to give an opinion on any method until he has been haunted months and even years by his unsuccessful cases. Centuries could not blot out of my memory one patient on whom I performed the *operation for double pyosalpinx* per abdomen, leaving the uterus. She made an unusually good recovery while in the hospital, but had been out only a few weeks when she returned to me with pus running out through an abdominal fistula, and in constant pain. From that day, for two long years, she haunted my office. She was a dispensary patient, but came to my office twice a week regularly without suggestion of a fee. During the first year I probed and cauterized in vain.

In despair I proposed a second operation. She objected, and when I saw her confidence waning, I took her to a distinguished surgeon for consultation and paid the fee. I offered him the case; he declined, and unfortunately for me suggested further delay in the hope that the ligature would suppurate out. Another dreary year passed. Life became a bur-

den to both of us, and I told her one day that she must allow me to operate or leave me. She returned in a few days and said she was ready for the operation. I removed the uterus per vaginam (together with the septic ligature), made a new abdominal wound, dissecting out the fistulous tract, and drained per vaginam. The wounds healed solidly, and she left the hospital a happy woman. I have not seen her since, but I have forgiven her ingratitude.

Objection is often made to the vaginal route, that it is a blind method of operating. Yes—surely to the surgeon who has not eyes in the ends of his fingers; but as the musician fingers the strings of his instrument until he can play with his eyes closed, so must the skilled pelvic surgeon be able to distinguish by the touch the line of cleavage between normal and pathological tissue.

♦ ♦

M. A. Morris, M. D.:

A child may not have had *eczema* as an infant, but develop same when four or six, when it is generally of the seborrheic type. It usually begins with the formation of circular or oval patches of a rough and scaly character upon the cheeks or forehead. These patches are usually passed by as being of no consequence. But here I would urge that they are of great importance, and that they should be treated. They are easier to treat when they are quiescent than when they are acute, and a relapse is much less likely if the original scaly condition be treated at the beginning. At this age the question occurs whether a child who is liable to repeated attacks of *eczema* of this character should go away to school, or whether such child should go to the seaside for the benefit of the general health. First, with regard to going away to school, I think children who have a tendency to this disease are far better treated at home; they are generally under the care of their mother, and are more likely to get well under these circumstances than if they were under the care of strangers. I have seen disastrous results from children with a distinct tendency to relapses of *eczema* going to school.

With regard to the question of benefiting the general health by going to live at the seaside so as to get rid of the

tendency, perhaps the patient has passed through the acute attack, but the parents have had experience of so many attacks in the past that they will ask the medical attendant if the child should be sent to the seaside. The answer depends entirely upon the character of the eczema. If the eczema of early life has left behind enlarged glands, which it may do from the local irritation, and if there is a distinct tuberculous history in the family, it is in some instances a particularly wise thing to send the young child to the seaside. I have seen many children who have lost their glandular enlargement, who have got perfectly strong and well, and who have at the same time lost their tendency to relapses of eczema by residence by the sea. On the other hand, if the attacks are inclined to be extremely acute, then certainly it is not wise to send the child to the sea, especially if there is no enlargement of glands and if there is nothing to suggest the possibility of a tuberculous history.

Another point which I want to deal with is the relation of eczema to teething. It has been the custom of the profession to be perfectly certain that teething is answerable for these attacks. It has never been perfectly clear in my mind that this is true. I have seen some of the worst cases before the teething period; I have seen some of these children who have been well during the teething period and have been very bad afterward, so I am doubtful as to what relation teething has to it. But the feeling is very strong, and I think the bulk of the profession would say that there is a strong influence in teething.

Translations.

YEAST IN THE TREATMENT OF LEUCORRHOEA.

W. Albert (Cent. f. Gynecologie, Leipsic): The disadvantages of the yeast treatment advocated recently by Landau are all obviated by using killed cultures of yeast cells. The substance thus formed is called sterile "Dauerhefe" by the writer, which might be translated "everlasting yeast." Vaginal secretions rapidly diminish and dry up, even large erosions heal fast, and when it is injected the night before an operation, the vagina is disinfected and sterilized better than with any other preparation known to date. The yeast displays its strongest fermenting power at 35° to 40° C.—the temperature it finds in the vagina. Kossmann, in a later number, quotes Hippocrates to the effect that yeast was recommended in his day in gynecology. He used it cooked, but Dioscorides later preferred it uncooked. He adds: "There is little new to be discovered in medicine, but as a knowledge of Greek is no longer necessary for the medical course in Germany, many wonderful new discoveries may be anticipated in the future."

FATE OF PREMATURELY BORN, ARTIFICIALLY DELIVERED CHILDREN.

F. Ahlfeld (Ibid.): Tracing the history of fifty-four children born to fifty-six women with deformed pelves, Ahlfeld finds that all but five survived the first year. The parents were all of the wage-earning class. This record is much above the average.

ULTIMATE FATE OF A MALIGNANT SYNCYTIOMA OF THE VAGINA.

A. O. Lindfors (Ibid.): One month after childbirth a malignant syncytioma was removed from the vaginal wall. There were no uterine symptoms. Lindfors reports now that the patient returned a year later with symptoms of a left pleurisy with effusion. The autopsy disclosed a large syncytioma—a malignant deciduoma—in the left lung with numerous metastases in other organs, but the genital organs were entirely

free. The embolus of the placental tissue in the left lung probably arrived at the time of the vaginal lesion, but did not commence to develop until favored by a grippal catarrh a year later.

HYDATID CYSTS OF THE BROAD LIGAMENT.

Boursier (*Rev. Mensuelle de Gynéc. Obstet. et Pædiat.*), after concluding the report of a case of this disease already published, adds full notes of a second case, also observed in a Bordeaux hospital. The patient was thirty-three, and had been seized six years previously with an attack of dysuria, which lasted about a week and ended abruptly. Two similar attacks came on at long intervals, the third quite recently, and after the third urine could not be passed without self-catheterism. On examination, Pousson of Bordeaux discovered a tumor quite unsuspected by the patient. It distended the abdomen in the hypogastric region, reaching halfway to the umbilicus, and occupied the front and left side of the pelvis, pushing the uterus backward and to the right. It was almost fixed and felt solid. There was no menorrhagia. At the operation the pelvis was elevated, then the tumor and uterus disengaged themselves from the pelvis, and slid into the abdominal cavity. The tumor had thin, bluish-white walls, and looked very much like an ovarian cyst. It was pedunculated, and its pedicle, long and thin, bound it to the left broad ligament. The ovary and tube were normal. The pedicle was ligatured, divided, and touched with the thermo-cautery. The cyst was of the size of a fetal head, very tense through extreme distention. The contents consist entirely of a fluid like the purest spring water. The inner wall of the cyst was a dead-white membrane of the character familiar in hydatid cysts. This case of Pousson's is the only instance of a pelvic hydatid tumor being pedunculated. Boursier adds a summary of the literature of the subject.

ACETONURIA IN PREGNANCY, LABOR, AND THE PUERPERIUM.

R. Costa (*Ann. di Ostet. e Gynec.*) gives the results of the estimation of acetone in the urine in pregnancy, labor, and the puerperium in twenty-six cases. He found that in physiological pregnancy at the ninth month the acetonuria is more marked than in the non-pregnant state; that in labor the

acetonuria increases, especially if the parturition be prolonged; and that in the puerperium it diminishes, remaining, however, greater than in pregnancy till after the sixth day. These observations do not support the view that acetonuria can be regarded as a sign of fetal death.

PRIMARY CARCINOMA OF FALLOPIAN TUBE.

Boursier and Venot (*Rev. de Gynéc. et de Chir. Abd.*) publish some valuable notes on a case which occurred in a woman, aged forty-five. She had borne four children, the youngest twenty years old. The period had always been regular till the patient had reached the age of forty-two; then she began to be troubled with severe lancinating pains in the right iliac fossa, accompanied by free watery discharge from the uterus. Ultimately this hydrorrhœa became continual, and it was sometimes sanious, or mixed with pure blood. There was no fetor, or dysuria, or intestinal obstruction. The patient was weak but not emaciated. A tumor of the size of a fetal head filled the right iliac fossa; it was slightly movable laterally. The uterus was enlarged and pushed backward; it was partly connected with the tumor, which seemed solid, so that uterine fibroid was diagnosed. An operation was performed. A soft tumor, freely adherent to adjacent structures, was removed; it burst during extraction. Its pedicle was the uterine end of the right fallopian tube. The operation was performed on March 7, 1900; on December 24 there was no symptom of recurrence. The tumor proved to be a papillary epithelioma of the dilated right fallopian tube; some sanious fluid was found in its interior, and the walls were covered with soft, tuberous masses, which constituted the new growth. The uterus and left appendages were found healthy at the operation. The authors consider that this case confirms much that has been advanced by authorities who have described earlier cases. Abdominal not vaginal section is needed when this disease is diagnosed.

URETHROCELE.

Pompe Van Meerdervoort (*Rev. de Gynéc. et de Chir. Abd.*) publishes some interesting general observations on this condition. His own patient was troubled with dysuria after her confinement one year before he saw her. Constant desire to micturate soon developed, and she occasionally noticed that

a little tumor appeared at the vulva, on such occasions mic-turition was less painful than when it did not appear. There was a slight cystocele, and on pressing the interior vaginal wall a swelling of the size of a pigeon's egg could be felt in the urethro-vaginal septum. It was invested with vaginal mucous membrane, and was elastic and dense. On passing the catheter along the superior wall of the urethra, it entered the bladder without obstruction and healthy urine escaped. On guiding it along the lower or posterior wall the catheter entered a sac-like cavity one inch above the urethra; the free end of the instrument could then be plainly felt through the vaginal walls, and a turbid sanious fluid came away through the catheter. Van Meerdervoort removed an oval piece of the anterior vaginal wall, then passed a sound into the urethra, and dissected away the urethrocele or urethral diverticulum. The thick walls of the urethra were united with catgut threads, the vaginal wound with silk. A catheter was retained for several days. Most of the vaginal sutures came away spontaneously, the remainder were removed at the end of a fortnight.

CORNUAL PREGNANCY: MUMMIFIED FETUS.

Glockner (Monats. f. Geburts. u. Gynäk.) operated on a primipara, aged twenty-three, suffering from abdominal pain and some symptoms of pregnancy. The period had been absent for three months. Next to the uterus, which was small, lay a swelling described as about half as big again as a man's fist. Extrauterine pregnancy was diagnosed. At the operation the right appendages were found proceeding from the outer aspect of the swelling. A mummified fetus of about the fourth or fifth month was discovered; it lay in the peritoneal cavity. The corpus luteum lay in the left or opposite ovary. The fetus and the rudimentary right cornu with the right appendages were removed. The patient recovered.

HERNIA SIMULATED BY TUMOR OF ROUND LIGAMENT.

Kauffmann (Centralbl. f. Gynäk.) reports a case of much interest. A woman, aged thirty, had been subject for several years to what was diagnosed as double inguinal hernia. The left swelling was laid open. There was not even a sac; hernia had been simulated by a tumor of the round ligament. Above

the swelling and up to the uterus the ligament was as thick as a pencil. The right tumor was as big as a hen's egg and looked at first sight like an enlarged ovary. Adjacent to it was a hernial sac containing a little omentum. The tumors were solid. After their removal the stumps of the round ligament were fixed as in Alexander's operation, and the external abdominal rings, much dilated, were closed by interrupted sutures.

THE BACKWARD POSITION OF THE UTERUS.

A welcome tendency in gynecological practice is noticeable in the direction of attaching less and less importance to the series of conditions which may be grouped as "displacements" of the uterus. Exaggerated views were for a long time held regarding the effect which may be produced by any deviation from the average in the angle which the body of the uterus makes with the neck. A diminution of fifteen degrees in this usually very obtuse angle was viewed as a matter of prime importance, and a vast amount of ingenuity was expended in the attempt to compel the uterus to adjust itself to the plane which the gynecologist had in mind for it. Similarly the relation of the uterine axis to the axis of the pelvis was regarded as of equal importance, and cases in which the usual relation was not observed was regarded as a "displacement," anterior, posterior, or lateral. Anterior displacements are now thoroughly discredited, and the instrumental and operative methods of treating them are well-nigh obsolete. The same can, however, scarcely be said of backward displacements. Instrument makers say that the demand for Hodge pessaries is well maintained, and the popularity of operations for anterior fixation of the uterus appears to be on the increase. A recent paper by Schroeder, in the *Zeitschrift für Geburtshilfe und Gynäkologie*, on the frequency of the backward position of the uterus, therefore deserves careful attention. Schroeder has examined the position of the uterus in 411 cases, partly in the Frauenklinik and partly in the Medicinische Boliklinik at Königsberg. He divided his cases into two groups: 303 cases with no pelvic symptoms, cases which were mostly under treatment for other conditions; and 119 cases with pelvic symptoms. Of the 303 cases with no pelvic symptoms, he found that in 21.07 the uterus was definitely "displaced" backward, the angle of flexion varying. Of the 119 cases with pelvic symptoms, in 36.11 per cent. the backward displacement was present. Further, 98 out of the 303 persons with no pelvic symptoms were presumptively

healthy persons, and had no complaint at all; yet 23.66 per cent. of these showed a backward "displacement" of the uterus. Great care appears to have been exercised in determining the position of the uterus, an anæsthetic being employed in any case where doubt remained after the usual examination. Further interesting results are obtained by a classification of the cases into groups according to their sexual condition. Thus, of the virgins examined, 40 per cent. had backward displacements, married nulliparæ 28.57 per cent., and parous women 25.72 per cent. The incidence of backward displacement thus appears to be greatest among women who have borne no children, and least among those who have; its frequency in the virgin is both striking and unexpected. Schroeder's results will no doubt be checked by further observations on the same lines. In the meantime it must be said that his results give powerful support to the views of those teachers who regard "displacements," uncomplicated by the presence of other lesions, as natural conditions not requiring treatment.

INFLUENZA IN CHILDBED.

M. Stolz (Monats. f. Geburts. u. Gynäk.) reports on 39 cases which occurred in Rosthorn's clinic at Graz in February-March, 1901. All occurred after the patients were transferred to the delivery ward, none arising among the pregnant women. The interval between transfer and onset varied from one to nine days. The diagnosis from puerperal infection was therefore important. The epidemic began gradually. The incubation period was sometimes under twenty-four hours. Usually the attack began suddenly with rigor and fever lasting one or more days, headache, especially frontal, and lumbar, sacral, and limb pains. Prodromals as malaise, cough, or sneezing sometimes occurred for a day or two. The fever rose as a rule sharply to 104° F., lasted a few hours or days, and ceased before the other symptoms. Tendency to recur was marked. The cases were of three types: (1) Seventeen cases. Sudden rise to 104°; pulse quiet and regular, never over 120, seldom over 100. Ten cases lasted a few hours, 2 over a day, 5 three days, and these had a tendency to marked morning remission on the third day. (2) Thirteen cases, of intermitting type, the fever rising sharply for a few evening hours, coming down as quickly to rise again for a day one to five days later. Six had two fever waves, 2 three, and 1 four, of one day duration, and 4 had waves of more than one day. (3) Severe recurrent or intermittent fever attacks, with diffuse bronchitis,

pneumonia, or pleuro-pneumonia, and once an empyæma. In the three worst cases it began two to four days after labor, rising suddenly, to fall again to normal or subnormal and rise again at night for one to three weeks. The sputum was profuse, frothy, and nummular, with here and there bloody streaks. There was a relative bradycardia, even when the temperature is high. Involution of the uterus was distinctly slower. In 13 cases the fundus had not, at intervals between the eleventh and twenty-second day, reached the pelvic brim. The tendency to bleeding was marked, its duration but not its intensity mostly proportioned to the subinvolution. Lochial decomposition and fetor were noted in 20 cases, once only before the onset of fever. No severe inflammatory process was noted in the pelvis, but one patient was found to have slight swelling in the parametrium, and one to have an adnexal tumor. These were probably mere coincidences, but the influenza seemed to predispose to the slighter infective phenomena. Of the 39 cases only 1 was up on the ninth day. The average period in bed was fifteen to sixteen days. Of the children five had green diarrhea, two bronchial catarrh and rhinitis. The milk secretion was unfavorably influenced, and only twenty-five children were kept solely on the breast. The initial catarrhal symptoms and the tendency to recurrence marked the difference between the slighter cases and slight puerperal fever. The most severe cases gave least difficulty in diagnosis from puerperal fever. The relatively slow pulse and the recurrences were most helpful in the diagnosis.

ABSCESS OF THE UTERUS.

Brindeau (Bull. de la Soc. Obstét. de Paris) reports a fatal case where criminal abortion was suspected. The patient was twenty-two. The period ceased in November. She made out that she fell downstairs on January 30; next day she miscarried. She was admitted into the Hôpital St. Louis in a septic condition. The curette was used on February 2, but only a trace of membranes came away. Death occurred on February 4. After death general peritonitis was discovered, and a great quantity of pus lay in the peritoneal cavity. The uterus was of the size normal at the second month of pregnancy. A tumor of the size of a hen's egg projected from its anterior aspect; it was uniformly convex, and of a reddish-violet hue. There was a small hole on its surface whence dark pus escaped. A second abscess lay in the fundus. Both had developed in the muscular wall of the uterus; they were cut off

from the endometrium, but a tract of tissue between the main abscess and the uterine cavity showed clear indications of perforation. No doubt the uterus had been injured by some instrument introduced to produce abortion. The blood before and after death was sterile; the pus contained the streptococcus and bacillus coli in abundance.

LITHOPÆDION IN UMBILICAL HERNIA.

Phenomenoff (*Monats. f. Geburts. u. Gynä.*) exhibited at the St. Petersburg Obstetrical Society last autumn a lithopædion, originating in a tubal pregnancy, which had wandered into an umbilical hernia. The patient was certain that two years and a half before treatment the period ceased and did not return for seven months, and there were the other symptoms of pregnancy. Then she felt violent abdominal pain as though someone had struck her a blow on the abdomen. She had to lie up and uterine hemorrhage occurred; she did not suffer from anything like syncope. The period then returned, and the patient did well till the spring of 1900, when debility and emaciation set in. A tough tuberos swelling projected from the abdomen. Phenomenoff found that it was an umbilical epiplocele with a growth firmly incorporated with its wall. This growth was a lithopædion enveloped in vascular omentum. Its sole connection with the pelvic viscera consisted of two cordlike bands, one connected with the left tube and one with the left ovary.

SURGICAL PERFORATION OF THE UTERUS.

Rebreyend (*Revue de Gynéc. et de Chir. Abd.*) has compiled an instructive summary of this kind of lesion, with abstracts of fourteen reported cases. These wounds may be received through the abdomen or through the vagina. The abdominal perforations include chiefly cases of hydramnion in twin pregnancy, tapped intentionally or in error, ovarian cysts being suspected. Occasionally a normal pregnant uterus has been punctured; in Stickney's case this was done twice near term, labor being apparently not hastened. The results of abdominal perforation are seldom grave; mere compression of the wound with lint after application of collodion seems sufficient. Vaginal perforation is not rare when a large fibromyoma is enucleated through the vagina. The prognosis is very serious. Rebreyend considers that abdominal section

should be performed at once in such cases, and the wound must be then sutured, its edges being trimmed if necessary. Only when the wound is very free and the uterus the seat of multiple fibroids, or otherwise unhealthy, should hysterectomy be performed. The perforation of the uterus by a sound or curette when antiseptic precautions have been already taken is seldom followed by bad complications.

PAINLESS LABORS.

O. Macé (L'Obstét.) reported at a recent meeting of the Obstetrical Society of Paris two cases of painless confinement. In the first the patient was a primipara of twenty years of age; and until the dilatation of the cervix was complete, and efforts at expulsion had commenced, the uterine contractions were quite painless. In the second case, the mother, aged twenty-five, a tripara, had previously had very rapid labors; she awoke in the middle of the night without pains, but during micturition the fetal head appeared at the vulva, and was soon born, with one of the parietal bones fractured, although there had been no interference, no rupture of the cord, and no falling of the child upon the ground. The medico-legal interest of the cases, and especially of the second one, was self-evident. In the discussion which followed Macé's communication it was suggested by Bar that the fracture might be a developmental anomaly, but Budin did not think that its clearly marked characters pointed to such a conclusion.

ABORTION.

R. Löwenhaupt (Die Heilkunde) describes the modern teaching of abortion. The treatment of threatened abortion comprises rest in bed, mental rest, bland diet, and regulation of bladder and rectum, and opium per os uteri, viburnum prunif. or hydrastis internally. He points out that packing the vagina, douches, and drugs which increase blood pressure must be avoided. Only when the mother's life is in danger must the expectative treatment be given up, and the abortion completed. The treatment of completed abortion is summed up as being identical with that of the puerperium. In dealing with incomplete abortion, he speaks first of the apyretic condition. He says that we have to aim at emptying the uterus completely, and our procedure must be guided by the conditions found by bimanual examination, by the symptoms, for

example, bleeding, and by the patient's general condition. Bleeding may be slight at first, becoming profuse, and later gradually lessening, leading to considerable anæmia and unconsciousness. Sometimes it is very slight, but continues for a long time. In any case, profuse bleeding may always bring the patient into immediate danger. If the cervix is already dilated, the uterus can be emptied at once. If the cervix is still contracted, he prefers to pack the vagina, cervix, and uterus with sterilized iodoform gauze, the patient first being put on the operating table, and the vagina receiving a douche of one per cent. lysol solution. The tampon may remain in place for twenty-four hours, but the pulse and temperature must be carefully watched. If this method cannot be carried out, one can get at the interior of the uterus by dilating the cervix with the finger, which is the safest and handiest way, or by means of metal or vulcanite dilators, or by means of laminaria tents. Metal dilators are, in the author's opinion, dangerous, and had better be left alone, and vulcanite dilators are to be used with great care. Laminaria tents may be used with safety, if no force is applied in introducing them, if they are not too big to be easily introduced, and if care is taken to previously satisfy one's self that they possess the proper curve of the cervix into which they are to be introduced. Of course, tents must be carefully sterilized before use; and subsequent to their use further dilatation may be induced by means of Hegar's dilators or Schröder's sounds, with safety. To empty the uterus, either the finger or the curette may be used, and Löwenhaupt much prefers the former, where it can be applied. In skilled hands, however, he considers the use of the curette to be very valuable. He keeps on reminding the reader of Säger's directions, "Without palpation there may be no emptying of the uterus." The after-treatment he employs is rest in bed for eight to ten days, ergotin given internally, but no douching unless there be some indication. Next he deals with pyretic abortion. In the sapræmic form he states that there is no difference of opinion with regard to the treatment. The uterus must be emptied forthwith. Dilatation of the cervix is best induced with the finger or laminaria tent, helped by vaginal tamponage. In the septicæmic form he points out that either an expectant treatment may be adopted, leaving the local condition rigidly alone lest fresh foci of infection are produced; or the uterus may be curetted and packed, or a total extirpation of the uterus may be undertaken. He does not give much hope for success by the first two methods, and he speaks very guardedly of the severe surgical undertaking. The last, he says, must always present a great difficulty in choosing the time, so as to be performed neither too early

nor too late; the infiltration must not have extended beyond the limits of the uterus. In antistreptococcus serum he says that he is disappointed, and that he cannot look upon it as a curative medication. Credé's ointment is also mentioned, but he considers that there are not enough data to hand yet to enable one to judge its merits. Alcohol, caffeine, strychnine, and large doses of secale or ergotine, as well as intravenous injections of saline solution, are the general remedies he recommends. With regard to the prophylaxis of abortion, he considers that the treatment of general conditions—for example, syphilis—sometimes by keeping the patient at rest during the early months of pregnancy, by the proper treatment of each pregnancy and lying-in, are among the most important preventives; and he mentions intrauterine injections with carbonate of soda solution followed by rest; and, if an abortion has occurred, he considers it of use to swab the uterus out with tincture of iodine (twenty per cent.) and chloride of zinc.

IMMENSE DILATATION OF THE BLADDER CAUSED BY THE INCARCERATION IN THE PELVIS OF A RETROVERTED GRAVID UTERUS.

M. Hannecart (Société Belge de Chir.) reported this case, not on account of its rarity, but because it presented certain points of very practical interest. The patient, aged thirty, was a multipara who had never had any previous difficulty connected with either her genital or urinary tracts. She complained of weight and pain, referred to the lumbar region, and pronounced constipation. Menstruation had been absent for four months. She complained of no difficulty of micturition, and stated, indeed, that she passed water with ease three or four times in twenty-four hours, and had no undue desire to micturate. The urine passed was normal. The abdomen had gradually increased until, during the fortnight before admission to hospital, it had become of enormous proportions. On examination, the abdomen was found practically filled with an immense tumor, reaching well above the umbilicus and into each flank, giving a sensation of fluctuation, dull on percussion, and not very sharply delimited from the tympanitic zones around it. The vulva and vagina were very œdematous, and the finger could not reach the cervix uteri. The pelvis was, however, felt to be filled by a firm, resistant mass. Bimanual examination, however, proved that the two tumors were quite independent, the one of the other. On passing a catheter, five liters of clear urine were withdrawn, and it was then discovered that the second tumor was the retroverted gravid

uterus. The malposition of the uterus was corrected and the organ kept in place by a pessary, the pregnancy running a normal course thereafter. The interest of the case lies in the fact that this woman owned to absolutely no symptoms connected with this immense vesical distention, and emphasizes the absolute necessity that exists to pass a catheter in all such cases, notwithstanding the absence of any vesical symptoms.

ABDOMINAL WOUND; HERNIA THROUGH SUTURE TRACKS.

Bröse (Centralbl. f. Gynäk.) exhibited, at the May meeting of the Berlin Obstetrical Society, a woman with three suture-track herniæ at the lower end of an abdominal cicatrix. The wound itself had united firmly, none of the cicatricial tissue having become stretched; but there were three pouches, the result of hernia of the cicatrices, not of the median incision, but of some of the suture tracks. This complication can only happen when the abdominal wound is united by deep interrupted sutures. When the layers are sutured separately it cannot develop. The deep suture always cuts through a considerable amount of tissue, even if it be removed within seven or eight days. The horizontal broadening of the suture track caused by the cutting of the suture is plainly visible on the surface of the skin on each side of the cicatrix of the abdominal wound. The same condition, Bröse insists, affects the deeper layers. Hernia may occur through stretching of one of these linear cicatrices. The neck of the sac is, by the nature of the complication, broad horizontally and narrow vertically. When at the operation for repair of the hernia the sac has been excised, the tissues at the neck must be united by sutures running from above downwards. During convalescence the patient should be kept in a half-sitting posture, as if she remain on her back the tension on the sutured tissues will be extreme.

AN UNDESCRIBED FORM OF UTERINE OCCLUSION.

L. Landau (Berl. klin. Woch.) reports the case of a woman of forty who had since her twelfth year regular menses, but no flow, and who had been for three years practically bedridden by repeated abdominal inflammations. Landau with considerable difficulty removed the uterus and a mass of tumors. They showed hematometra, double hematosalpinx, plastic oöphoritis of the right, hemorrhagic cystoma of the

left ovary, plastic peritonitis, and hematomatic cysts of the cellular tissue. In place of the cervix was a tumor of the size and hardness of an apple, passing gradually into the uterine tissue. Microscopically the tumor was mesonephric, with distributed muscle and gland in a lymphadenoid stroma, with characteristic tubular arrangement. The case is notable, not only for the cause of the block, but also on account of the long period—twenty-eight years—which had elapsed before the operation. In the same paper is recorded a case in which for fifteen years a patient had regular menses without flow, and where at the removal of the appendages Landau found the uterus so firm that, though it was enlarged, he did not think it contained blood. He had to remove the uterus vaginally three months later for colicky pains, and found in it about three tablespoonfuls of blood. The paper ends with a discussion of the pathogenesis of the mesonephric tumor.

LOCAL UTERINE HÆMOSTATICS.

Toff writes on this subject (*Rivista de Chir.*): With regard to (1) ferripyrin, he says that in 65 cases there were only 6 failures. Of 4 of puerperal bleeding 1 failed, and of 18 after abortion 3. Of 20 endometritics 1 failed, while 19 cases of profuse menstruation all reacted. In one of 3 myoma patients it failed, but it gave good result in a cervical cancer. One c.cm. of a 15 to 20 per cent. solution was injected by a Braun syringe, and in only one was painful contraction of the womb excited. When the bleeding is very free the tampon is used as well, but the ferripyrin stopped bleeding in some cases where tamponade, ergot, and other means had failed. (2) Antipyrin-salol. Spaeth (*Monats. f. Geburts. u. Gyn.*): This is a mixture of antipyrin and salol liquefied by heating, and is applied by wadding on a probe. It is only fluid at temperatures from 120° to 190° F., and is melted in a test tube. It produces a slough, especially at the cervix. As all the patients did not return for observation the full number of permanent cures is not known. In 70 cases 6 showed no result, and in 7, though cessation of a menorrhagia or metrorrhagia was got, no protection against further profusion or effect on it was got. Of these 5 had endometritis, and 4 of these were known to be granular. Four cases associated with adnexal swelling were also failures. The others were 2 with myoma, where the effect was transitory, 1 with a polyp at the cornu, and 1 constitutional. Of those which gave good results 19 were endometric and 17 subinvolution post abortum, 8 of them needing to be completed; 3 were bleeding after curettage, 1 was

climacteric, and 1 pubertal flooding. The others were endometritic, with parametritis in 1, perimetritis in 3, salpingo-oöphoritis in 4, and oöphoritis in 5. The number of applications may be one or two, and a few may need three or four. When these are not effectual more are generally useless. A table of the cases is given.

VERSION FOR CONTRACTED PELVIS.

Albert (Münch. med. Woch.) gives his experience of the treatment of contracted pelvis. He has collected his material from his external midwifery department in Dresden, and deals with 1187 births. He generalizes the teaching by saying that a high forceps operation must never be undertaken when version is possible, and that version and immediate extraction should be practiced when a reasonable chance of spontaneous delivery has been given without avail. His assistants are not allowed to use forceps (high operation) on a "movable" head, and especially when there is a contraction of the pelvis. He advises that narcosis be adopted for version, and especially emphasizes the utility of the Veit-Smellie method of dealing with the after-coming head. The assistant or nurse must apply pressure to the abdominal wall (that is, to the uterus) in a downward and backward direction, with the palm of the hand and not with the fingers. Further, he finds that the "hanging" position, after Walcher, in which the mother is placed in a dorsal position, with the thighs hyperextended and hanging over the edge of the bed or table, is particularly valuable in the stage of extraction of the after-coming head. The membranes must be preserved intact as long as possible, and allowed to exert their influence in dilating the os. In cases in which the membranes have already ruptured, or fail to produce the necessary dilatation, artificial dilators must be used, and he points out that a careful introduction of a suitable "bag" is unattended with any risk. He uses it (1) when, the membranes having ruptured prematurely, he can retain the liquor amnii, dilate the os, and strengthen the pains, especially in primiparæ; (2) when, with intact membranes, the head does not engage, on account of contracted pelvis and incompletely dilated os, and also in oblique and transverse presentations; (3) when a clear idea cannot be formed as to how the course of the case will be in cases of moderate contraction of the pelvis. He usually gives morphine in small doses (one-seventh gr.) when he uses artificial dilatation. In his cases version was performed 105 times; of these, 45 turnings were used with normal pelves for the non-engagement of the head, transverse presentation,

prolapse of the cord, placenta prævia, and other causes. In 60 cases, there were flattened pelvis (14 cases), generally contracted and flattened pelvis (17 cases), generally contracted pelvis (14 cases), and 15 cases of contracted pelvis in which the measurements were not recorded. The true conjugate varied between 2.7 and 3.5 inches; of the children, 9 out of 9 cases of placenta prævia died, and 3 were already dead before version was performed. This left 93 children, and 5 of them died, giving 82.8 per cent. of living children (that is, living when the mother was discharged as "well"). Of the contracted-pelvis children, 18.7 per cent. died and 81.3 per cent. lived. The mothers all recovered except 1. In 4 cases a temporary pyrexia was recorded. In conclusion, he points out that the results might be even better, as his assistants were often inexperienced in the operation of version, and thus may have failed to save the child in certain cases in which a more skilled practitioner could have been successful.

UNCONTROLLABLE VOMITING IN PREGNANCY.

L. Lapeyre (*L'Obstétrique*) records a case of hyperemesis in a secundipara, aged twenty-five, who had also a tumor. Until the peritoneal cavity was opened into *per vaginam*, it was doubtful whether the swelling which existed in addition to the uterine enlargement was an ovarian cyst or an extra-uterine gestation. It turned out to be an ovarian cystoma in the pouch of Douglas, and was easily removed by posterior colpotomy; at the same time the diagnosis of pregnancy was clearly established; the uterus was found to be inclined to the left side and was of the size of a two-months' gestation. Notwithstanding the removal of the cyst the vomiting continued to be incoercible, and the induction of abortion by means of the introduction of a laminaria tent was rendered necessary. Twin fetuses were extracted, and then the vomiting ceased, or rather it had ceased with the completion of the cervical dilatation. A good recovery was made. Lapeyre concludes from the study of this case, and a comparison of it with others, that in pregnancy complicated by the presence of an ovarian cyst hyperemesis is not more frequent than in simple pregnancy; that if uncontrollable vomiting does exist, it is connected with the pregnancy solely, and not in any way with the cyst; and that therefore the removal of the cyst is useless in the treatment of the vomiting, which indeed requires the induction of abortion. He also regards the vaginal route for the removal of the cyst as the one to be adopted if pregnancy coexist.

DYSTOCIA FROM POLYCYSTIC FETAL LIVER.

Porak and Couvelaire (*Ann. de Gynéc. et d'Obstét.*) report a case of difficult labor, where there was a large abdominal tumor and where the obstetrician was puzzled by deformity of the fetal extremities. The patient was a perfectly healthy, tall primipara, aged twenty, free from tubercle, syphilis, and albuminuria. Labor commenced at term on December 5, about 8 a. m. The patient was admitted into the maternity at 5 p. m.; the membranes had ruptured. A soft mass of the size of a tangerine orange lay in the vagina; it was attached by a pedicle to the small presenting fetal head, which was engaged in the pelvis. The soft mass was cerebral matter. At 10 p. m. this mass protruded through the vulva; but the second stage lingered. At 11.50 it had not advanced further than it was nearly two hours previously. A hand presented to the right of the head and was brought down; it proved to be the left hand and the arm was short, as in "fetal rickets." Traction was practiced on the left arm with pressure on the abdomen. The head was delivered, but the neck remained above the vulvar orifice. The posterior or right arm, very short, was brought down. Traction was then made on both arms. With great difficulty the trunk was delivered as far as the axilla, but it was felt that the arms were tearing off at the axilla. The right hand was passed into the left side of the pelvis, then it was found that the abdomen was enormously distended and lay entirely above the brim. It was tapped by a trocar and 350 grams of a pale green grumous fluid came away. Then delivery was easy, and all was over at 12.45 a. m. The mother made a good recovery. The fetus was exencephalous with cleft palate, club foot, an enormous polycystic liver, and smaller polymicrocystic kidneys. Dystocia from this kind of hepatic tumor is almost unknown.

The question of the use of cane sugar as a food for patients suffering from pulmonary tuberculosis is one worthy of attention.

It is the impurities of sweets, not the sweets themselves, which injure the teeth. The teeth of West Indian negroes are splendid, as a rule, and they live on sugar. The only cases in which pure cane sugar should be temporarily withheld from children are those in which the digestion is out of order. If sugar be taken into a stomach where fermentation is going on, it is probably split up before it can reach the small intestine. The ultimate product of the fermentation of sugar outside the body is alcohol; what the product would be in the stomach I do not know.

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THE MANAGEMENT OF NORMAL LABOR.*

BY GEORGE R. SOUTHWICK, M. D.

Normal labor is hardly to be defined by any one phrase, but rather by the fact that it is characterized by the gradual progress and completion of parturition, the absence of complications requiring manual assistance or interference, and the fact that the pulse and temperature do not rise above 100. We are to measure normal labor, not by its mere duration, but rather by the clinical conditions and the symptoms or results produced.

Normal labor presupposes normal conditions, but it also implies that abnormal conditions may be made normal by proper management or prophylaxis.

Time does not permit, and courtesy forbids me, to rehearse the ordinary details of practice before this scientific body. It is my function rather to suggest topics for discussion which may add something to our common fund of knowledge.

Two careful examinations are necessary during pregnancy, especially in primiparæ. The first examination should be made

* Read before the American Institute.

- not far from the first half of pregnancy, to ascertain the presence of any condition of the soft or bony parts in or about the pelvis, or the existence of any disease which might interfere with normal labor. The examination of the urine should include the total twenty-four hours' secretion, the specific gravity, the estimation of total solids, the presence of albumin, the percentage of urea, and in abnormal conditions the microscopical examination of the fresh urinary sediment. The urinary analysis ought to be repeated once in two weeks during the remainder of pregnancy.

The second examination should be made in the beginning of the ninth month of pregnancy, to determine the position of the child, with the intention of changing a malposition, if present, and to secure a normal labor. The child at this time is movable, and usually has not become so fixed in any one position but that some change can be made, if desirable. There are few conditions in the practice of medicine to which the aphorism "Forewarned, forearmed" applies more truly.

The urinary analysis deals especially with the prophylaxis of convulsions. Eclampsia, like sepsis, tends to death. Like sepsis, but to a less degree, it is a preventable disease. Each is due to a systemic poisoning with some toxin which must not be allowed to accumulate in the system. This subject suggests the following topics for consideration:

First. The presence of albumin in considerable quantity does not warrant interference with pregnancy, provided the excretion of urea is good, the total twenty-four hours' secretion of about 1200 c. c., and the amount of total solids nearly normal.

Second. A progressively increasing amount of albumin in large quantities, one half wet bulk or over, warrants the termination of pregnancy, even though the other factors are favorable.

Third. A very small amount of albumin, a low total secretion, a low specific gravity, small excretion of urea, and a low amount of total solids also warrant the termination of pregnancy, if speedy improvement does not follow treatment.

Fourth. In addition to a strict milk diet, the value of agents such as diuretics, to eliminate excretory products, the hot, moist pack, cathartics, and more especially calomel,—to remove bil-

iary products, which some believe cause eclampsia,—to empty the bowels of toxins and to exert an antiseptic effect on them. The writer will only remark that he is not yet convinced of the advantages attributed to calomel.

Fifth. True conservatism demands the induction of labor when premonitory symptoms are growing more pronounced, without waiting for the convulsion to occur.

The diagnosis of the position of the child in utero by abdominal palpation at the beginning of the ninth month, and the correction of malpositions by direct manipulation or by posture, deserve consideration. The writer has met with excellent success in these methods of treatment by converting a breech into a vertex position, a vertex into a breech, transverse into cephalic, and dorso-posterior into dorso-anterior positions, with normal labor resulting at full term. Careful and judicious manipulations for this purpose are safe and, though not always successful, are worthy of trial.

Pelvimetry deserves attention in the general consideration of prophylaxis. It is easy to detect a marked contraction of the pelvis demanding Cæsarean section; but how many cases there are of minor pelvic contraction which go unrecognized, and yet produce serious complications of labor? In very many such cases the induction of premature labor saves both mother and child, and the labor resulting is normal.

Another topic worthy of discussion, under the general head of prophylaxis, is whether dieting the mother during pregnancy will secure not only a normal, but an easy, labor. A special method of dieting has been tried in Germany as a substitute for the induction of labor in cases of minor pelvic contraction. A diet for this purpose should include a certain amount of proteid material, as well as carbon hydrates, and should be supervised carefully by the attending physician. The mother and her unborn babe must be nourished sufficiently. The writer believes a proper and rational diet is always advisable on general principles, but as a method of securing easy labors and healthy infants he considers it a failure.

The subject of posture in normal labor is important. Proper posture may convert abnormal into normal labor. One effect is to change the inclination of the plane of the pelvic

brim and to lengthen its antero-posterior diameter. A well-known illustration of this is Walcher's position. This has been commonly adopted in obstetrical operations at the pelvic brim, when the utmost possible space is required to accomplish delivery, such as the extraction of the after-coming head.

The second effect of posture is its action on the child, the presenting part, being comparatively fixed, is affected by the leverage of the body proper. This has been taken advantage of early in labor to affect the mechanism, to promote the rotation of the fetal head, or to correct an oblique position of the child. Placing the mother on the side corresponding to the back of the child has often aided materially in cases of occipito-posterior positions with poor flexion of the chin on the sternum. Another posture, which is sometimes useful if prolapse of the cord is detected at the beginning of labor, is that which approximates the Trendelenberg position. This same posture is also helpful where the head fails to engage well in the brim and enters poorly flexed or tends to catch at the side. It is a great help in manual reposition of the head, though the latter hardly can be considered normal labor.

Posture during the last month of pregnancy deserves more attention than is given commonly to it. Examination early in the ninth month sometimes discloses an oblique position of the child or a dorso-posterior position. In these cases the knee-chest position taken daily, night and morning, is a material aid in improving the position of the child and in correcting a tendency to a transverse position. The uterus in this position lengthens in its long diameter, and the long diameter of the child tends to conform to it. If the back of the child is posterior, the child is partially dislodged from a position into which it is being somewhat fixed, and if the patient, after the knee-chest position, lies well over on the side corresponding to the child's back, the latter tends to glide forward into an anterior position. It should be remembered, however, that posture of the patient with the intent to improve the position of the child is only available when the child is freely movable, and the best time to use it is a month before the date of expected delivery.

Posture of the patient during normal labor varies with pro-

fessional and race customs to a wide extent without materially affecting the result. The use of anæsthetics in normal labor near the close of the second stage is generally accepted practice. Chloroform is used much more easily and is more agreeable to take than ether. Chloroform has a more profound inhibitory effect on the uterine muscle than ether, so that if labor tends to be prolonged the writer prefers ether. This same effect on the uterine muscle also means more relaxation of the uterus and increased post-partum bleeding. If anæsthesia should be prolonged, the administration of oxygen with the ether is of great advantage. There is less enervation of the uterine muscle with less danger of post-partum hemorrhage. The prolonged use of ether endangers the life of the child from the direct effect of the anæsthetic while the brain of the child is already subjected to considerable compression. The use of oxygen under these circumstances is of great advantage to the infant in preventing asphyxia.

Local anæsthesia has no place in relieving the pains of parturition. The pain is due to causes which are too widespread and too deeply situated for local anæsthesia to be available.

The nearest approach to it is spinal cocainization. It appears to be very effectual in relieving pain, and is a remarkable demonstration of neuro-physiology and local anæsthesia. The writer feels that it will require a much larger experience with this method before it can be adopted in general practice.

The use of antitoxics in normal labor is worthy of consideration. The use of ergot in some form has been a fruitful theme for discussion, either as a remedy for flagging pains or to prevent post-partum hemorrhage. The writer has used ferrum phos. or quinine for flagging pains to good advantage, but he is of the opinion that strictly normal labor requires no remedy beyond good management to prevent post-partum hemorrhage, and that the routine use of ergot in normal labor is to be condemned.

The best means of preventing post-partum hemorrhage is to secure persistent uterine contraction and retraction by following down the uterus at the close of the second stage of labor, and by constantly keeping the hand on the fundus uteri for at least half an hour after delivery. This should not be intrusted

to an inexperienced person except in case of actual necessity.

The use of remedies in labor should be discussed thoroughly among us as homeopathic physicians, and all the more so as the text-books are silent, and this is our great opportunity for an interchange of personal experience.

Is the course of labor influenced by giving any remedies for that purpose during the ninth month of pregnancy, and is the position of the child influenced by any remedy? A remedy which promotes the health of the woman will prepare her better for labor. It also seems reasonable to expect that those remedies will aid materially normal labor which act on the uterine muscle, give that organ better tone or activity, and which make it harmonize as perfectly as possible with the organism as a whole, and particularly with those forces acting through the nervous system. The writer has had fewer complications of labor, and more normal labors, since using remedies for this purpose during the ninth month of pregnancy. *Cimicifuga*, *pulsatilla*, *aletris farinosa*, and *ferrum phos.* have been the remedies most used. The better the muscular tone of the uterus the more likely is the axis of the child to approximate the long axis of the uterus, taking into consideration the ordinary mobility and motion of the child; but the writer cannot believe that the giving of any remedy will in itself correct a malposition.

The subject of preventive therapeutics is a wide one, and the use of gelatine in various ways in the treatment of aneurism suggests that it might be used to good advantage for the prevention of excessive flowing in women having that tendency.

The modern surgeon proudly exhibits the pathological specimens from seemingly impossible operations as the jewels of his handiwork and a triumph of aseptic management, but the credit of the discovery which has made this possible rests with an obstetrician of Vienna, who died in the madhouse, driven there by his disappointment in seeking to establish his discovery. Modern midwifery is in turn deeply indebted to surgery for the development of asepsis, which vies with anæsthesia as one of the greatest discoveries in the past century of medicine. It has converted the old lying-in hospital from a house of death

to one of life, a true "maison de santé," and the general public is soon to understand that the modern maternity hospital is a safer place for parturition than the best appointed private residence.

Asepsis is the keynote to this change, and it is of no little importance to consider some of its principles in relation to normal labor.

The preparation of the lying-in woman under ordinary circumstances is accomplished, in addition to emptying the bowels and bladder, by a thorough hot bath for the entire body, with the free use of a strong alkali soap, such as soft or green soap, and putting on clean linen. The external genitals should be washed afterward with a strong solution of corrosive sublimate.

The observations of Williams and several others have shown the self-cleansing power of the normal vagina in pregnancy, and that pathogenic bacteria do not grow in the acid vaginal secretion. Nature is on guard, as it were, at the gateway of life, and challenges the invader to mortal combat. The vaginal discharge is not proof, however, against gonorrhea, and, if in some way, such as douching, dilution, or neutralizing the natural acidity of the secretion, its inhibitory action is destroyed, the pus-producing bacteria may develop. These facts lead us to important deductions for douching the vagina previous to or during normal labor. If the vaginal discharge shows the presence of pathogenic bacteria, which have obtained lodgment, or if it shows clinical evidence, such as being purulent and producing vaginitis, then thorough douching should be practiced; otherwise, the vagina should not be douched in the management of normal labor.

It follows as a necessary corollary that labor must be so conducted as to avoid the introduction of infectious organisms, and the principles of this are: the limiting of examinations, the larger use of abdominal palpation as a substitute, and the perfect asepsis of the obstetrician and of everything which touches the patient. An accurate diagnosis of all the conditions present is indispensable.

Abdominal palpation in the beginning of labor affords more information of the position of the child than vaginal explora-

tion. The most important time for the vaginal examination is at the time the membranes rupture, to ascertain the possible prolapse of the cord and to determine exactly the presenting part, its position and flexion or extension, and the condition of the parturient canal in general. No other examination should be made as long as labor progresses normally; and the vulva should be covered with a light compress wet in corrosive sublimate. It is also my custom to keep the vulva covered with such a compress after the child is born.

The preparation of the physician merits more thoughtful consideration than is generally given. It is not enough to wear only the ordinary clothing, to wash the hands in soap and water, dip them in a sublimate solution, wipe them on a towel, smear them from an open pot of vaseline, and proceed to make a vaginal examination. Yet this is not only common practice, but it is using more care than some men take.

The rules of aseptic abdominal surgery find a most useful application in the practice of obstetrics. No surgeon makes a post-mortem, or handles virulent septic material, or treats a case of phlegmonous erysipelas, and then performs an abdominal section. No more should the accoucheur do the same in his line of work. There are instances where a physician may have been brought in contact with some mild form of sepsis or infection, and it is in these cases that the obstetrical rubber gloves are an absolute necessity, and are worn in addition to the most thorough antiseptic preparation possible. The hands and bare arms should be prepared in the usual manner, with permanganate of potash and oxalic acid, or by the bicarbonate of soda and chloride of lime method. Wear a sterilized gown. Do not wipe the hands or touch anything which is not sterilized before the examination is made. Use no lubricant for the finger, if not absolutely necessary, and then only that known to be sterile. Banish the jar of vaseline, however fresh; the collapsible tube is better. In making the examination, separate the vulva so as to open the vaginal orifice, and the sterile finger can be introduced directly in the center without touching any portion of the external genitals. The older plan of examining under the clothing and wiping the finger over the perineum is not only nasty, but increases the risk of introducing pathogenetic bacteria.

The chief fault in the management of normal labor lies in doing too much, making frequent examinations, and not having sufficient regard for asepsis.

The management of the third stage of labor is important. The vulva should be covered with a light compress wet in some aseptic solution. The soft parts can be examined for lacerations then or after the delivery of the placenta.

If good uterine contractions are maintained, and urine has not been allowed to collect in the bladder, the placenta usually comes away of itself. As a general rule there is little use in waiting for the placenta after ten or fifteen minutes, as by that time uterine contractions will have effected complete separation from the uterus. The writer would emphasize the value of the Credé method, or the Dublin grip, and deprecate attempts to deliver the placenta by traction on the cord or the insertion of the hand or fingers in normal cases.

Finally, the inspection of the placenta and membranes by floating them in a basin of water is all-important. If there is uncertainty as to the presence of the entire placenta and membranes, there should be no hesitation in making a thorough intra-uterine exploration to remove the missing portions.

All lacerations in the vagina or perineum should be carefully searched for, and united by catgut supplemented by a few strands of silkworm gut.

Douching after normal labor is to be avoided, but the genitals are to be carefully cleansed, and often the matted hair needs to be cut away. Large aseptic pads are applied to the vulva, and also a snugly fitting binder is applied over the abdomen without a compress beneath it.

The crowning glory of obstetrics lies not in the development of the modern Cæsarean section, but in the thorough application of the principles of aseptic surgery. The management of normal labor is characterized by three generalizations: strict asepsis, masterful inactivity, and watchful expectancy.

SYMPTOMS, DIAGNOSIS, PATHOLOGY, AND LOCAL
AND INTERNAL TREATMENT OF INJURIES TO
THE GENITAL TRACT.*

BY SAMUEL PARKER HEDGES, M. D.

In giving the symptoms, diagnosis, pathology, local and internal treatment, I shall not in this paper treat them as they are systematically presented in text-books or in didactic teaching. I propose a more practical and general presentation, something more nearly like an account of one's personal experience in examining and treating these conditions. And, first, let us have a clear idea of what the term genital tract means. Billings, in his medical dictionary, says something like this: "Genital Tract.—The continuously connected series of passages belonging to the female organs of generation." In this paper I include the immediately contiguous muscles, tissues, vessels, and organs.

The great number of diseases which may affect this tract are not under consideration at this time. The great majority of injuries occur during the act of parturition, but at other times these regions are wounded from violence. We will only refer to a few of this class of injuries. The external organs of generation are so situated as to be greatly protected from ordinary violence. They are guarded in front by the thighs and pubis, in the back by the sacrum, and on either side by the large muscles of the nates. So that only direct violence can injure them. They are, however, in a few cases wounded by some penetrating instrument, such as the horn of an animal, or by a fall on some long or sharp stick, or the kick of a strong boot,—as happens from brutal men among the lower classes,—and from many other happenings, as given in the surgical books. Young girls are assaulted and raped with most cruel and brutal lacerations of these parts; but from whatever cause, all such injuries are to be treated under the general surgical rules—hemorrhage is to be stopped, the parts lacerated cleansed antiseptically, and sutured and treated as any other wounds. And recoveries at this time are as rapid and thorough as in wounds in other parts of the body. But injuries happening to

* American Institute of Homeopathy.

the genital tract during parturition are much more dangerous, owing to the very great change in pathological conditions.

Another class of injuries must be noted as specially happening to the vagina, and they arise from the presence of foreign bodies in the vagina. A great variety of articles have been taken from the vagina. Usually they have been used for the purpose of masturbation, and, slipping from the grasp of the fingers, have passed into the vagina beyond reach. Pessaries have been often forgotten by the patient, and, in time becoming imbedded in adventitious growth, have caused great inflammation and offensive discharges. Often very difficult of diagnosis, these cases have only been discerned under operation. Pessaries, out of proportion to the parts, or badly fitting, have ulcerated through the vesico-vaginal septum and also the vagino-rectal septum, and caused serious fistulæ. The vulva, and even the entire perineum, have been lacerated during first coition, and even fatal hemorrhage has resulted.

We may divide all injuries to the genital tract into two classes: those from without, as surgical; and those from within, as obstetric. Many cases of stenosis and atresia of the vulva and vagina have resulted from those surgical injuries, especially where they have been neglected, without intelligent care, or no care at all.

An almost infinite variety of injuries, from accidents and otherwise, have happened to the external and internal female sexual organs at all ages and periods, except the parturient period, and they possess only a general surgical interest and are treated as ordinary wounds. They are, therefore, not of special interest to this bureau, and will be referred to no further.

Let us now consider the injuries which occur during parturition. They are far more in number than all other injuries combined, and far more dangerous in their course and results. The reason of this increased danger is owing to the changes which take place in the parturient canal during the period of gestation. According to Simpson, the cavity of the uterus, which, in the unimpregnated state is equal to only one cubic inch, is at the full time of pregnancy equal to four hundred cubic inches. The walls of this hollow organ are wonderfully enlarged into a state of physiological hypertrophy. The muscular fiber is grown in length and thickness, the connective

tissue proportionately increased, the blood vessels are enlarged and elongated, the glandular elements have increased in like proportion, and the mucous membrane is being transformed into decidua. The supply of blood increases constantly to the end of nine months. The vascularity of the vagina is extreme, and partakes of the like changes as the uterus. It grows in length and breadth; its tissues become softer and more distensible. The entire genital tract is thus developed to meet the demands of the expected labor. Histologically the tissues and fibers are the same, but vastly more numerous and of increased size. Injuries to such organs and tissues, vessels and nerves, must in the very nature of things be a very serious condition, or likely to become so. And in this condition they are during labor subjected to enormous distention and violence. Barnes, in his work, says of the injury sustained by these parts in labor, as follows: "The evidence of the traumatic injury sustained in labor remains in the indented cicatrices round the margin of the os, which are characteristic of the vaginal portion in women who have borne children. But if the parts are examined soon after labor, much more striking marks of the injury they have sustained will be witnessed. Immediately after labor the vaginal portion of the cervix is large, flabby, pulpy, so as to be almost indistinguishable to the touch. It is some days before it retracts to any considerable extent, or acquires much firmness of texture. The tissues of the cervix and of the connective tissue surrounding the vessels at their entry from the broad ligaments are infiltrated with serum, which is to be absorbed.

As I have repeatedly seen in post-mortem examinations at the end of a week, even, or ten days after labor, the entire thickness of the vaginal portion of the cervix is still soft, large, and black from ecchymosis.

This is a vivid and concise description of the injuries at the os and upper portion of the vagina. And it is repeated almost exactly at the vaginal outlet at the completion of labor. These are the always-occurring and to-be-expected results in every case of labor, more especially at the first childbirth.

As the fallopian tubes are never injured during labor, except in the very rare occurrence of rupture of the body of the uterus, involving the uterine end of the tube, it will not be considered in this paper.

Rupture of the body of the uterus is the most infrequent of all accidents of parturition. But when it does occur it is one of the most dangerous. Until quite recently it was uniformly fatal. At the present day, however, with prompt surgical attention and under favorable surroundings, the life of the mother may be saved. The very high death rate has certainly been reduced within the past fifteen years. As this accident to the uterus is really an obstetric question, I will not take time for further consideration here. If rupture of the uterus is the most infrequent of injuries during labor, laceration of the cervix is the most frequent. While authors differ as to percentages, it is usually agreed that it happens in one fifth of all confinements. The causes are both predisposing and determining. Whatever weakens the cervical tissues—and these may be local or constitutional—tends to prepare the way for laceration. The determining cause, of course, is the distention for the passage of the fetal head or shoulders. If the medical attendant notices that the os is hot, and dry, and undilatable, and crowded forward under the pubis, and followed, during a severe pain, by sudden descent of the presenting part, he may expect a laceration. And when the placenta is delivered and the uterus well and firmly contracted, if he notices a small flow of blood, bright and red, as from a fresh cut, he can be certain a severe laceration has occurred. The cervix may be torn on one side, or both, or several tears occur at same labor. The left side is most frequently torn. When these tears only involve the margin of the os they are called physiological, and do not need repairing. Sometimes the laceration is concealed, not showing any appearance to the eye or the touch.

This form of laceration is within the cervix and may be longitudinal or circular. It often heals with extensive cicatricial deposits. Some of these tears extend into the edge of the broad ligament, and by extension of septic infection, carried by the lymphatics of this region, cause extensive cellulitis, often involving tubes and peritoneum. Immediately after labor the os is so soft and puffy, and the tissues relaxed, that digital examination cannot determine the extent of injury, or if there has been any at all. But in from seven to fourteen days thereafter the nature and extent of the laceration can be determined, and at the end of three months, and in some cases, even before.

the tears can be repaired. Immediate operation for these tears is not practical or advisable. Sometimes, but rarely, nature heals the injury herself. Where the torn surfaces are nicely coapted, and remain so, the discharge being normal and bland, nature may do a perfect job. And what nature does in a few instances shows just what should be done in all cases of pathological laceration by the skill and art of the gynecologist. The immediate symptoms of a laceration, except for hemorrhage, are few and indeterminate. But what of the symptoms leading to the diagnosis following the labor? Let us see. The lady has a slow and tedious recovery, and when she is finally up she feels a heavy and dragging sensation in her back and limbs, with pains here and there, and finds herself unable to walk far without great pain and weakness. These symptoms often continue for months, gradually increasing until she consults her physician. He learns, on careful investigation, the whole story of her distress: menstrual irregularities, ovarian tenderness, sacro-lumbar pains, leucorrhœa—numberless reflex phenomena involving almost any portion of the body. He notices a marked condition of malnutrition, and consequent anæmia. On digital examination he may find the external os gaping wide, the mucous membrane rolled outward and rubbing on the vagina; or the cervix may be hard, showing hyperplasia and cicatricial deposits, and hyper-sensitive to touch.

The amount of suffering caused by laceration is no indication of the extent of the injury. Some patients with only a medium tear and no complicating lesions will be in great distress. Others seem to suffer little from most extensive injuries. In this latter case the condition is only discovered when, by taking cold or overstraining, an inflammation of the uterus or pelvic organs leads to the correct diagnosis. It is thus seen that an unhealed or badly healed laceration of the cervix may be responsible for the following various pathological conditions and their results. These results, often remote, may be so serious that it is of the greatest importance they should not be overlooked. The solution of the continuity of the cervical tissues disturbs instantly the circulation, impairs nerve reaction, obstructs lymphatics, and brings on a severe hyperæmia. The surrounding tissues become swollen, soft, and œdematous, and infiltration of adjacent tissues occurs, causing the most aggra-

vating dyspareunia. Following this condition, we may have a real hyperplasia of the cervix. This takes place both from an unhealed and eroded tear or from one viciously healed by the deposit of cicatricial plug. This hyperplasia, extending upward, causes areolar hyperplasia, both cervical and corporeal, of the uterus, and a resulting endometritis and even fungoid endometritis. The deposit of cicatricial tissue of a low organization brings on, by a constriction of terminal nerve fibers, such a disturbance of the circulation as to interfere with the proper involution of the uterus, and we have the long train of symptoms attending subinvolution. Likewise, this pinching of the nerves causes an impaired nutrition and a constantly increasing number of reflexes, reaching and disturbing the special senses and the most distant functions. But there are sequelæ more remote both as to time and location, following upon unrepaired cervical lesions. The "vice of nutrition," as Dr. Wood calls it, seems to affect the whole body. Hence there follows malignant degeneration of tissues at the point of injury. Epithelioma and other cancerous growths are observed in multiparous uteri in vastly more cases than in nulliparous uteri. How important is it that early attention should be given in repairing a cervical laceration, that there can be no local lesion left as a starting-point for cancer of the cervix, which is more frequent at the time of the menopause. But the most distressing sequela is where there is impairment of the mental powers, and all the long train of changes of disposition and temperament, insomnia, melancholia, even to complete dementia or violent insanity. These may all come from this injury of which we are speaking—and it is now generally realized that an insane woman with a lacerated cervix uteri should have the lesion repaired at the very beginning of her treatment. All efforts to cure without the operation would most likely fail. Immediate relief and progressive improvement of the mental faculties have resulted in numberless cases where the cervical treatment has preceded the treatment of the alienist.

Lacerations of the vaginal walls may occur at any place—either the upper, middle, or lower portion; most likely, however along the posterior or lateral surfaces. These rents, however, for practical purposes of consideration may be associated

either in the upper vagina, with injuries of the cervix, or in the lower vagina, with injuries to the outlet of the vagina or perineum. In either case they are included and repaired with the more serious injury near which they occur. Where they are the only injury it is important that they should be repaired, lest by vicious union the vagina be contracted by cicatricial bands, which would make any future confinement exceedingly hazardous, resulting in more extensive tears. Immediate repair of these rents high in vagina is not advisable, but should later on be carefully diagnosed and repaired.

The last injury to be considered is a laceration of the perineum. I shall not take time to describe the anatomy of this body, or of the floor or outlet of the vagina. While anatomists and gynecologists are somewhat at variance as to whether the perineum is the main and proper support of the pelvic organs, or only partially so, it is shown by experience that a rupture of the perineum is nearly always followed by a sagging of the pelvic floor and prolapse of the uterus. The causes predisposing to a rupture may be many. A state of general nervous tension in the system, causing a strong involuntary resistance in the nerves and muscles, thereby rendering the perineal muscles undilatable, the shape of the pelvic arch, when it is high and narrow, also favor the accident. The perineum prolonged forward is more apt to be torn than a short fleshy one. This is my observation. The perineum is more likely to be torn in an old primipara than a young one. Scrofulous or syphilitic diseases, or cicatrices from previous lacerations, also predispose. Unfavorable presentations, as the occipito-posterior, or malformation, may be a cause, or from the head being unusually large. And it is said that the injury happens more frequently with patients in the dorsal decubitus than on the side. We must also recognize that too rapid or unskillful forceps delivery may be a cause. In the interests of the child a forceps delivery may be necessarily so rapid as to lacerate the perineum. Thirty years ago the obstetric mistake was to leave the presenting part too long when progress was stopped. The modern mistake is too rapid delivery with forceps, sometimes to save the doctor's time. In both cases rupture of perineum is a result. Statistics by various authors as to the frequency of this accident are so variable that we must

each form his individual opinion. I have not kept an exact record of my cases all the years, but, approximately, I would say that one in seven labors, or about fifteen per cent., have been more than superficially lacerated—sufficiently in my practice to require primary repair. Lacerations are usually of three degrees: superficial, involving only the fourchette and edge of perineum; incomplete, extending to edge of sphincter ani; and complete, involving most of the perineal body and the sphincter ani and one inch of the anterior rectal wall. As these are not the only forms of laceration, it is necessary that the diagnosis be made promptly after delivery of placenta, and by inspection under a strong light. Sometimes the interior wall of the vagina needs to be held back by a duck-bill speculum, the clots and discharges removed, and the tissues carefully inspected; then we may discover vents in vagina, and observe extent and depth. If deep and gaping, they need suturing. We may notice that the skin portions of the perineal body is only torn, leaving the body intact, or the tissues going to make up this body may be torn and the skin uninjured. This latter is called a concealed laceration, and is often unrecognized. This latter is more serious than a skin tear. Also carefully note the injury to the rectal outlet and the rectal wall.

It has happened, rarely, that the fetal head has begun to tear high up in the posterior vaginal wall, and has forced its way down and has perforated the perineum, leaving the posterior commissure of vagina untornd. Sometimes, after a long and tedious labor, no laceration is observed by even a thorough inspection, but after four to six days the bruised and injured tissues of the perineum and posterior vaginal wall have sloughed out, leaving a more or less complete laceration to heal by granulation. Such a thorough examination is necessary for a complete diagnosis, and should be made as soon after the third stage of labor is ended as condition of the patient will warrant. Treatment should be surgical and immediate. The primary operation of perineorrhaphy probably belongs to the domain of obstetrics. This is the border line between obstetrics and gynecology, and is at times claimed by both.

Where there has been an incomplete laceration of the perineum, the rectum not involved, the patient will complain of weakness and a dragging feeling in the pelvis. This will be

worse from any exertion or long standing. She will often complain that her womb is low, and feels as though it would fall out, causing the greatest discomfort, and even severe pains. In addition to these symptoms, if the tear has been complete and the sphincter ani is torn, the patient will say that she is troubled by air escaping from the vagina on turning in bed or changing position. Some surgeons consider this symptom alone enough to warrant a diagnosis and to demand immediate perineorrhaphy. But here again, as after labor, the diagnosis can only be made by digital and ocular examination. Close and careful inspection is absolutely essential. Sometimes on separating the thighs,—the patient in the lithotomy position,—the scene of the injury is plainly to be noticed. In another case the skin of the perineum may be complete. The case may be one of concealed or subcutaneous laceration. By placing the index fingers of both hands in the rectum and vagina, and bringing them together, it will be noticed that there is only the skin and anterior wall of rectum between the fingers. In such a case the pelvic floor has been entirely destroyed, including the perineal body. The weakness and distress of the patient in this form of injury is often as great as in the worst form of laceration.

There is another kind of injury of the concealed variety, in which there has been an overstretching of the deep fibers. They seem to be paralyzed, and the strong fibrous and elastic tissues which make up the fascia here, as well as the muscles, have all lost their tone and resistance. This constitutes the condition of pelvic relaxation which Kelly mentions as so important to keep in mind in all efforts to repair these injuries. While it is not my purpose—for lack of time—to give fully the anatomy of these parts, you all bear in mind that the true perineal body, besides the muscular fibers entering into its structure, consists mainly of a pyramidal collection of connected tissue fibers, chiefly elastic, the apex being upward. This serves for the attachment of the several muscles and ligaments which stretch down from their origins on the pubis ischium and sacrum. This strong fibro-elastic muscular curtain is pierced by the vagina and rectum. All these tissues are richly supplied with blood vessels, lymphatics, and nerves—a vascular and highly organized structure. Imagine this violently torn

throughout almost its whole lower segment and left unrepaired, to heal by slow granulations. The raw and broken surfaces are for many days exposed to the constant flow of irritating discharges, broken pieces of decidua, more or less fetid, broken-down blood cells, and muco-purulent pus. To this are added, in a complete rupture, the fæces and gases from the bowel. Consider all this continuing under a rising temperature, with congested and inflamed adjacent tissues, with lymphatic chains reaching up into the vaginal and uterine regions and out along the broad ligaments, even to the peritoneum. Next to the similar unhealed lacerated cervix, the danger of septic infection and extensive septicæmia and cellulitis is, in this case, truly alarming. Primary operation for the cervical tear is not practicable, and the risks must be taken, but no such risks should be taken in neglecting to repair a torn perineum. Even in the most extensive lacerations, involving much of the anterior wall of the rectum, the primary operation should be as carefully done as circumstances will allow. For even if complete union is not attained, sufficient union is gained so that the secondary operation will be more easily and surely accomplished. A woman with an unrepaired laceration may escape with her life, and slowly struggle back to an invalid existence, but proper repair at once, after labor, would have saved her most of the pain, and all of the danger, and left her a well woman. The secondary operation should be done as soon as involution of the uterus is complete, or about the third or fourth month after labor.

Too long waiting may tend not only to paralysis of the torn muscles, but a steadily increasing muscular atrophy, making repair almost, if not fully, impossible.

The atrophy and paralysis in such a case would be hastened by the abnormal condition in which rupture has left the parts. Muscles torn from their proper attachments are drawn away and relaxed, blood vessels and lymphatics are displaced and their normal circulation disturbed and the broken nerve fibers fail to exercise their usual vaso-motor function. In no other place in the body could an injury as severe as this cause such a complicated pathology, with such grave and extensive results. It may be said by some that so much written on this subject is unnecessary, as all this is common knowledge.

Then why is it that these operations are so frequent all over the country, in all the hospitals? Gynecologists are daily tracing to these unhealed and badly healed lacerations the cause of invalidism in thousands of instances. Iteration and reiteration should be sounded forth until neglect, carelessness, and ignorance in the management of post-obstetric treatment would be entirely done away with.

In regard to local and internal treatment, I have already stated that all injuries to the genital tract occurring at any age or period, except the obstetric, are to be treated by surgical rules. And even here the internal treatment will come under remarks to be made further on. The injuries happening to the uterus, vagina, and rectum during labor, and repaired immediately, only require the efficient care of a trained nurse, and such aid as may be given by the indicated remedy of the obstetrician.

Injuries occurring and not repaired immediately, will require local treatment, by cleaning and antiseptic douches; the rule being to attain as absolute freedom of the parts from septic absorption as possible. Later on, local applications will be needed of iodine and glycerine, or iodine tinct. or iodine and carbolic acid, with tampon of wool or cotton medicated with calendula or hydrastis. Or the case may improve under the dry treatment applied with a powder blower. Very many other local medicinal applications are used, according to the judgment of the practitioner. The same remedy given internally will be as truly indicated for local use, and thus be administered with advantage.

If obstetric lacerations are repaired at once there will be no necessity to treat erosions of cervix and all the various pathological conditions described above. In conclusion, as regards internal treatment, I appeal to you all not to forget that you are homeopathic physicians, even if you are surgeons and gynecologists. The tendency in the surgical mind to-day is to ignore internal medication. This mind is acquired largely from the older school of medicine. They have few or no remedies for internal use at all applicable in the after-treatment following operations. Hence their whole thought is to rely on nature alone, only assisted by local measures and the usual opiate. But we are not left so unarmed in the presence of con-

ditions post-operative. We need not stand by and see nature struggle alone to regain health. The homeopathic surgeon should not forget or ignore his own remedies, thinking he does not need their aid. His cures would be much more complete under the benign influence of the indicated remedy. The trend in our present medical progress is not along the lines of *materia medica* and therapeutics; yet, if we have any real claim to exist as a separate school of medicine, it is by the special development of our homeopathic *materia medica* and therapeutics. These are the corner stone upon which we must build, if we are to have a standing among scientific men. I am glad to notice that there is a recognition of this among our surgeons; more attention being paid to these branches. There are at present two distinct divisions in our ranks in regard to the treatment of diseases of women. One does nothing but operate and give local treatment; never prescribes a remedy—indeed does not think of such a thing—may order a cathartic or opiate or tonic. The other division does nothing but give the indicated remedy—absolutely nothing else, except to caution as to diet. Now both of these classes are wrong. A happy mean as usual is better. Some of the diseases of women can be cured by the indicated remedy alone; some are cured by local or operative measures alone, but many more can be cured by the carefully selected remedy combined with the local or operative method. I have known a most successful surgeon and homeopath who never left a patient after operation without thoughtfully selecting a remedy for internal use, to be administered according to his orders. He considered that if a remedy was not called for for any other reason, the patient was a wounded and suffering patient. One of the various remedies indicated in such cases was given, as *arn.*, *symphytum*, *hamamelis*, or *aconite*, etc. From my reading of our medical journals, and even the text-books, of late years, and from my observation of surgeons who have operated on my cases, I have been led to these remarks. In concluding, I earnestly call your attention to a more earnest and constant prescribing of the homeopathic remedy in the post-operative treatment. The fact that the patient required an operation is conclusive that she needs internal remedies to aid nature in overcoming the predisposing cause leading to the diseased condition requiring the operation.

POLIOMYELITIS ANTERIOR ACUTA—TO WHAT EXTENT CAN IT BE CURED? *

BY JOSEPH P. COBB, M. D.

I do not care to take up your time in discussing the ætiology and pathology of poliomyelitis, or infantile spinal paralysis, but rather to consider immediately the prognosis and treatment of the disease.

Let me state briefly the essential points of the disease.

First: The onset is sudden, with fever, vomiting, coma, and convulsions; resembling the initial symptoms of scarlatina. These initial symptoms persist but a few days.

Second: Flaccid paralysis associated with atrophy appears early. The paralysis may be widely distributed, or narrowly limited to one member, or even to a single group of muscles. Electrical reactions of the affected muscles are altered and the deep reflexes are diminished or lost.

Third: Retrogression of the paralysis will begin in from two to four weeks. Contractures will take place when one set of opposing muscles are permanently paralyzed.

Fourth: Any muscle which responds to the faradic current, or in which an excitability to the faradic current returns, or one which gives normal behavior to the galvanic current, will regain its function.

Fifth: The only satisfactory ætiological theory of the disease is that it is an acute inflammation of the anterior gray matter of the cord due to infection. The infection is brought by the blood. The primary location of the infection is in the blood vessels: the inflammation then becomes interstitial. The proliferation of neuroglia and the degeneration of ganglion cells are secondary to the endothelial inflammation, and are most distinct in the vicinity of the altered blood vessels.

The prognosis as regards life is invariably favorable; neither should a gloomy prognosis as regards return of functions be always given. It is true that some paralysis will always remain, but it may be but a small fraction of the muscles at first paralyzed that will remain permanently disabled. We are dealing with the most hopeful period of life, and no one can

* Prepared for the Illinois Homeopathic Medical Association.

say how extensive the retrogression will be, or to what extent different groups of muscles will learn to do the work of their disabled coworkers.

Cases in which but few muscles have been involved will often recover with very little apparent disability, while cases in which the primary paralysis involved all of the limbs may not have a single limb completely paralyzed. Little change need be expected during the first month, and only signs of improvement in the second month. Muscles which, even though paralyzed, exhibit slight changes of electrical reaction may be expected to improve. Only those muscles which early show the reaction of degeneration and remain paralyzed for months are to be despaired of.

I have selected the following case from our records of the Children's Clinic at Hahnemann Hospital as an illustration of our treatment, and of what may be expected in the way of results.

October 26, 1900.—Russell —, aet. fifteen months; has two brothers æt. respectively twenty-two and four years; three sisters, twenty, seventeen, and eight years. They are all enjoying good health and have not suffered with any unusual disease. The father has inflammatory rheumatism; the mother's health is good. Russell was breast-fed exclusively for nine or ten months; now eats bread, oatmeal, crackers, potatoes, and is still nursed. He had pneumonia when seven or eight months old; cut his first tooth at five months; began walking at twelve months, and was progressing finely up until eight weeks ago. At that time his mother thinks he was frightened by a disturbance at night. He became unconscious at that time, and in the morning he had a convulsion: Mother cannot remember whether he vomited or not; he had a fever, which lasted about one week. Immediately following the convulsion it was found that he could not move his arms or legs at all. He had learned to use the left arm and right leg, but cannot now use the right arm at all, cannot stand alone, or put any weight on the left leg.

The muscles of the arm, while paralyzed, showed reaction to the faradic current. In the leg the muscles supplied by the anterior tibial nerve, viz., the tibialis anticus, the extensor

proprius pollicis, *extensor longus digitorum*, the *peroneus tertius*, and the *extensor brevis digitorum*, show the most marked electrical changes. The child has no power of extension of the leg or foot.

His appetite is good; his bowels are constipated; the urine is dark, and he is restless in his sleep. He was given *calcareo carb.* His diet was carefully prescribed, and his mother was directed to stop nursing him. She was also directed to appear three times each week for electrical treatment. The mother was instructed how to massage the arms and legs, and was requested to do so for fifteen minutes twice each day. The electrical treatment was by means of the galvanic current, and was conducted by my clinical assistant, Dr. Kate W. Ellis.

November 2.—Reports improvement; can use right arm and hand, some; little change in the left leg; appetite good; the bowels are regular.

February 1.—There has been steady improvement, most noticeable during the last month; during the last week has been trying to walk. Improvement was retarded in November by the occurrence of an attack of acute bronchitis. Little atrophy of the muscles of the leg can now be discerned; in the arm none. He does not use the left foot well, and the toes of this foot curl under when his shoe is off.

April 1.—He is walking fairly well; drags the toe of the left foot, some; uses his arms equally well.

This little child came under our care only after eight weeks had elapsed since the onset of the disease, and when the mother had repeatedly been told that nothing could be done for him, and that he would be a cripple for life. He illustrates the value of massage and the galvanic current in improving the circulation in the affected parts, in improving the nutrition by reawakening the trophic centers, in stimulating the ganglion centers, and in recalling the irritability of the nerves and excitability of the disabled muscles.

In the onset we are dealing with an infectious disease, in which nerve tissue is inflamed. We must not lose sight of the fact that absolute rest, a proper diet, and care of the eliminating organs are essential. Massage and electricity are harmful at this time, and should not be used until all inflammatory symptoms have subsided.

"WHAT I DO FOR THE MOTHER AFTER THE
BIRTH OF THE CHILD." *

BY REBECCA ROGERS GEORGE, M. D.

The time has been when the idea prevailed, and in some places still obtains, that the duties and responsibilities of the obstetrician practically end with the advent of the child, tying of the cord, and delivery of placenta.

Given a healthy woman, normal delivery, and favorable surroundings, there may be little else for a physician to do in many cases. But as physically well-developed women are the exception rather than the rule, and as uncomplicated parturitions are not widely prevalent among the upper and middle classes the modern accoucheur hardly feels his duties or responsibilities over until the end of the second week, at least. Many times the comfort and future health of the patient would be greatly enhanced if the obstetrician kept careful watch of her symptoms and conditions for two or three months, instead of two or three weeks, thereby rendering unnecessary many weary months of gynecologic treatment later on in the woman's life history.

It is with this thought in view, no doubt, that the chairman of this bureau has asked me to tell "What I Do for the Mother after the Birth of the Child," specifying that I give only a summary of my own actual practice, and not the theory or teaching of any text-book. Being thus deprived of any ammunition of long words or high-sounding phrases, and with no bulwark of authority, manned by numerous quotations, to hide behind as my views are projected, I can only depend upon the usual good nature of this august body to pardon the unavoidable too frequent use of the personal pronoun, as different phases of the subject are touched upon.

After the child has accomplished its passage through the maternal channels, and by the anxiously waited-for cry announced its advent into the world, a completed being, the first duty of the physician is to the mother, whose life may still be in danger from any one of a variety of causes.

* Indiana Institute of Homeopathy.

After the tying of the cord, it has never been my custom to wait quietly for half an hour to an hour, for the natural expulsion of the placenta by a tired-out uterus.

If no expulsive effort occurs within five or ten minutes after the cord has been severed, I apply gentle circular friction on the abdomen, over the uterus, which is grasped and pressed downward with the left hand, while slight, very slight, traction is made on the cord with the right hand.

If after two or three efforts of this kind the placenta does not descend into the vagina, I thoroughly sterilize my right hand, and follow up the cord with my fingers, and in the majority of cases find the placenta distending the os, where it is easily grasped and dislodged, while the left hand continues to make steady pressure from above.

The placenta is then withdrawn, slowly and carefully, through the vaginal orifice onto the Kelly pad upon which the patient is lying, and where no undue haste need be used in examining the placental tissues as to their entirety. The Kelly pad, in my experience, obviates much of the disagreeable in obstetric work, catching, as it does, the free hemorrhagic discharge which usually follows the placental withdrawal, and is ready for use also, in case a post-partum hemorrhage renders the copious hot douche necessary.

If the uterus does not immediately contract after placental expulsion, I massage it through the abdominal wall until it becomes firm and hard, when I have an assistant place the hand upon it, exerting firm but gentle pressure, and preclude the possibility of hemorrhage as a result of uterine relaxation.

Believing it easier to prevent than to control a post-partum hemorrhage, I have made it a fixed rule to have slight pressure applied to the uterine walls for at least half an hour after placental delivery, and longer if the firm contraction does not result, or if the pulse rate approaches or exceeds one hundred beats to the minute.

With proper uterine contraction and a good pulse, I proceed to the thorough examination of the patient for perineal or vaginal damage of any kind.

All traces of the discharge having been removed, and the vulvar tissues having been sponged with a warm sterile water

applied with fresh absorbent cotton, the parts are exposed to a good light, and ocular as well as tactile evidence is sought for any lacerations.

If found, the vagina above the womb is packed with pledgets of sterile cotton to prevent occlusion of the field by uterine discharges, and, with instruments previously sterilized, the injury is repaired at once, as a part of the necessary toilet of the parturient patient.

With everything made ready beforehand, this repair can be quickly accomplished while the tissues are yet benumbed from the pressure of presenting part, and there is no shadow of a to-morrow's operation with an anæsthetic and consequent nausea, to trouble the patient's peace of mind.

After the perineum has been carefully and thoroughly repaired, I saturate a bit of sterile gauze with non-alcoholic calendula, and apply directly over the wounded surface, after which a pad of absorbent cotton is placed over the vulva and retained by a T bandage of gauze or a clean napkin pinned to the abdominal binding.

I know there are a variety of opinions as to the wisdom of using an abdominal binder, but I have failed to see any possible harm coming from a snugly fitted, but not tight, bandage. It certainly gives a sense of comfort to the patient, and is a necessity as a means of retaining the T bandage in place, if used, and until I can trace some bad results to its use I shall continue, as I do now, to employ it in every case.

The vulvar dressings previously mentioned serve the double purpose of catching the discharges and preventing infection from without. They must be changed, of course, after each urination, or oftener if the lochia is profuse.

When the urethra has not been so bruised as to make voluntary urination impossible, I do not catheterize, even to avoid the possibility of the urine passing over a freshly united perineum, for my experience has taught me that union is neither hindered or prevented by the urine touching it, if after each urination warm water is allowed to trickle over the vulvar and perineal tissues in sufficient quantity to thoroughly cleanse—this to be followed by a fresh strip of calendulated gauze and vulvar pad.

This method serves to very early relieve any sensation of soreness or local discomfort to the patient, and suppuration or sloughing is an unknown quantity.

I have failed to get union in but one case of ruptured perineum, and that was due, not to the pulling of stitches, or to the formation of pus, for there was not a drop, but to the fact that the usual slight swelling which occurs for a time after the tissues are drawn together, did not occur, therefore the stitches did not hold the surfaces in close apposition, and as a result they healed separately, making secondary repair on the eighth day necessary.

Many parturient cases, otherwise unable to urinate naturally, can do so during the progress of a warm douche, which may thus serve the double purpose of a persuader and cleanser.

If the hot douche, applications over the bladder of moist heat, or the homeopathic remedy all fail to make voluntary urination possible at the end of twelve to eighteen hours after delivery, I use, or have the nurse use, the catheter under strictest antiseptic precautions—and anyone inclined to scoff at antiseptics will probably experience a change of heart after having to treat a case of cystitis induced by lack of care in cleansing the catheter and adjacent parts.

For that reason no desire on the part of the physician or nurse to acquire tactile skill in catheterization should ever permit this to be done without the aid of good light, good eyesight, and free exposure of the parts.

To introduce the catheter under the bed-clothes, without a thorough cleansing of adjacent tissues, is worse than nonsense; it is pernicious and censurable.

In all lying-in cases, whether there has been a laceration or not, I permit the patient to change her position as frequently as suits her comfort; believing there is much less danger of a consequent retrodisplacement than when the patient is advised to lie on her back continuously.

Where there has been a laceration, a cheese-cloth bandage pinned loosely around the patient's knees prevents a separation of the limbs in changing position, and a possible pulling apart of freshly united tissues.

After the lying-in chamber has been freed from all evidence

of a recent confinement, and the patient's toilet been completed, she is given a cup of hot malted milk, cow's milk, or weak tea, as she prefers; the room is then darkened and kept absolutely free from the intruding curiosity of neighbors and friends, whose only ability in most cases lies in the art of making trouble for the doctor and nurse to counteract.

Whenever possible, I have the child taken from the room and kept until the mother has had a few hours of well-earned rest and sleep.

Indeed, I believe that recovery would many times be hastened if each night the infant slept away from the mother's room—that her sleep might be undisturbed except at each nursing time.

For the first three days after confinement I keep the mother on a liquid diet: preferably milk, either hot or cold, once in three hours, if she can take milk. If this grows tiresome it can be varied with malted milk, cocoa made with milk, or simple broths.

But upon liquid food of some kind I depend for three days, when, if no abnormal symptoms present, semi-solids are allowed—as, for instance, soft boiled or poached eggs, milk toast, rice, etc. But a full diet is never permitted until the end of the first week.

In cases where there is a repaired laceration to heal, no effort is made to empty the colon until the third day, at which time an ounce of olive oil is injected into the rectum and allowed to remain a half hour, to be followed by a warm-water enema. This usually results in a softening of the fecal mass, and an easy copious evacuation follows. After this a daily elimination is encouraged, by enemas, if necessary.

Until the past two years it has been my invariable custom to insist on a vaginal douche night and morning with every parturient case. But with the great possibility of carelessness on the part of the nurse as regards both the douche nozzle and the water, I have more recently been in the habit of waiting until the third or fourth day, or until the lochia become somewhat offensive, before ordering the douche, unless such symptoms present as to make the use of the douche imperative from the beginning.

When douches are given to the lying-in patient, too much care cannot be taken in having the water properly boiled and cooled, and the douche tip thoroughly sterilized either by boiling or keeping it, when not in use, in a carbolized solution.

I suppose no obstetrician ever becomes so inured to the uncertainties of his special work as not to feel a sudden sinking sensation about his cardiac region when the thermometer is found to be registering much above the 100° mark in obstetrical cases.

If with this decided elevation of temperature there is a history of chill, headache, rapid pulse, and abdominal tenderness, a battle is on which will take prompt and effective work on the part of the physician if he is to win the day against his septic foe. But not every parturient with a history of chill and fever within the first week necessarily has a puerperal septicæmia, for unless these symptoms are accompanied by tenderness and pain in uterus, cessation of involution and vitiated or deficient lochia, the fever will be due to other causes.

Fever due solely to the coming of the milk I believe to be unusual.

Deficient or faulty elimination from the intestinal tract may be, and often is, the exciting cause of a temperature elevation, while a malarial infection which manifests itself after confinement is not unusual, and because its first symptom is usually a slight chill or chilliness, followed by fever, it may occasion grave alarm, as indicative of true puerperal fever. But when of malarial origin there is absence of uterine soreness or pain; there is no interference of involution, and the characteristic quick, wiry, peritoneal pulse is wanting. There is an absence also of that facial expression, hard to describe, yet easily recognized in septic cases.

My first experience with a malarial fever coincident to the lying-in state caused me not a little anxiety, but when a thorough uterine irrigation was followed by no fall in temperature, and there was no uterine tenderness, I ventured to put her upon anti-malarial remedies, to which she promptly responded. There was absolutely no interruption of her puerperal progress, and, while the fever slightly prolonged her stay in bed, she made an absolutely uneventful recovery.

If the nipples have been properly cared for during pregnancy, and there is no cervical tear as a parturient result, there is usually but little, if any, trouble with the nipples after confinement.

It has long been my custom to put the child to the breast within a few hours after delivery, for three reasons: First, for the effect of the colostrum on the child; second, to keep up uterine contraction, and, third, to draw out the nipple. If the nipple is small or undeveloped it is much easier for the child to take hold of it before the breast becomes distended with milk, and it is much less liable to be injured by the child in its first efforts if the parts are soft and relaxed. If, in spite of good care and frequent cleansing of the nipple, cracks and fissures begin to appear, local measures may be necessary, and such applications as compound tincture of benzoin, calendula, or graphites cerate, zinc oxide, etc., will in ordinary cases give relief. In very severe cases, however, the nipple shield may be necessary for a time.

If caked breasts threaten, or actually exist, I rely solely upon hot, moist fomentations, followed by antiphlogistine and the indicated remedy, which is usually belladonna, bryonia, or phytolacca. The treatment has been uniformly successful in my hands, and as I have never had a case go on to suppuration I feel justified in advising it as a good thing—coupled of course, with proper bandaging of the breasts to give support during the inflammatory stage.

While a physician may find no other problems in a given obstetrical case, there is one he is reasonably sure of meeting; others may fail, but this rarely faileth.

I refer to the time question as to when the patient can with safety be allowed to sit up.

Wishing to make as good a record as her mother, sister, aunt, or next-door neighbor, who got up on the tenth day, many a patient is prone to rebel if permission is not given her to do the same.

But if there is any time when a physician's will should be inexorable, it is now. He should lay down a law as unchangeable as that of the Medes and Persians, that as long as the

uterus can be felt above the pelvic brim, just so long must the patient not assume the upright position.

This rule therefore permits some patients to sit up on the tenth day, while others might have to wait until the fourteenth, eighteenth, or even twenty-first day, according to individual conditions.

If this law was more generally understood and observed there would be a marked decrease in the vast army of women suffering from chronic metritis, endometritis, retro-displacements, and uterine saggers as a direct result of its non-observance.

A parturient woman should be made to understand, also, that even after the uterus has descended beneath the pelvic brim, if the upright position results in a recurrence of the red flow she must wait still longer before trying to get up and resume active duties. For I believe that quite as many cases of semi-invalidism are due to subinvolution resulting from a premature resumption of duties as from laceration of the cervix.

I believe also that if women were told just why it was necessary for them to remain in bed until conditions were right for them to get up, few would be found who would not prefer an extra week, or even weeks, of enforced quiet rather than months or years of physical discomfort and pain.

It goes without saying that the more intelligent a woman is on this subject the more willing is she to abide by the decision of her physician.

I believe it to be part of a doctor's duty, therefore, to give careful instruction to his lying-in cases along these lines, and if, as the years go by, his office is not so full of cases needing gynecologic aid, he will have the happy consciousness of not only relieving but preventing many of those insidious diseases which afflict womanhood to-day.

LABOR COMPLICATED BY DEFORMITIES OF PELVIS.

BY L. C. SAMMONS, M. D.

Deformities of the pelvis form one of the most important subjects of obstetric study, for from the various deformities arise the greatest difficulties met with in obstetric practice.

A knowledge, therefore, of their causes and effects and the best means of detecting them is of the greatest necessity, which, by the way, is far from easy, owing to their numerous forms.

The most frequent causes of pelvic deformities are the two diseases known as rickets and osteomalachia. Of these the former is the most frequent, generally producing a narrowing of the conjugate diameter of the brim, while the latter causes a contraction of the transverse diameter, with a gradual approximation of the pubic bones.

There are other less frequent causes of these deformities, but of them I will not speak, but will enter more particularly into a discussion of the treatment of labor when we are confronted by these *bête noirs*, for such they are to the general practitioner. For quite frequently are we called to the bedside of a parturient woman, whom we have never seen before, and the first examination reveals a deformed pelvis, and we must then determine its general outline and deal with it accordingly.

It also rarely happens that deformities of the pelvis, except of the gravest kind, are suspected before labor has actually commenced.

The management of labor in a contracted pelvis is one of the most perplexing questions in obstetrics, notwithstanding the various ideas and suggestions advanced by able obstetricians.

When the antero-posterior diameter of the brim measures two and three-quarters or three inches, the destruction of the child is inevitable, unless the pelvis is so small as to necessitate a Cæsarean section; but when the measurement is greater than three inches, there may be a discussion upon the use of forceps, turning, or the induction of premature labor; but with the majority I think the use of the forceps is most in favor,

especially among our American writers, while the foreign journals, more particularly the German, give turning the preference and condemn the forceps altogether.

I think the most reliable means of aiding the patient is the forceps. But it should always be borne in mind that the forceps operation in these cases is much more dangerous than when they are called for in uterine inertia, where there is plenty of room, and the head is in the cavity of the pelvis and the blades have to be passed up high.

When pelvic deformity is suspected artificial assistance should not be hurried, for Nature herself will compel the head to pass a considerable obstruction, and for this reason she should be given time to act, unless such symptoms as elevation of temperature, rapid pulse, dryness of the vagina arise; then mechanical intervention is called for.

In any case where the conjugate diameter is above three and one-quarter inches the forceps often enables us to effect a delivery, and in a majority of cases there is a fair hope of saving the child.

There is no doubt in my mind but that most writers exaggerate the compressive power of the forceps; but with the Elliott forceps, which I am in the custom of using, this disadvantage, if there be any, is more than counterbalanced by the traction on the head, and that the minor degrees of obstruction can thus overcome is abundantly proven by the almost numberless cases in which forceps have been used.

Of course there may be cases where the forceps do not act as well as in others, for instance, when the head is loose above the brim and the contraction is limited to the antero-posterior diameter, and there is considerable room at the sides of the pelvis for the occiput to occupy after version, and when, as usual, the anterior fontanelle is depressed and the head lies transversely across the brim. Here, no doubt, turning would be the safer operation for the mother.

But when, on the other hand, the head has engaged the brim and has become more or less impacted, it is certain version could not be performed without pushing it back, which would be neither easy nor safe.

And in the generally contracted pelvis in which the head

enters in an exaggerated state of flexion and lies obliquely, the posterior fontanelle being much depressed, the forceps is beyond doubt more suitable.

There are, of course, some cases where version succeeds when forceps have failed. The base of the cranium being the narrowest part of the head, in ordinary head presentations the latter part of the head has to pass first; but if the feet are brought down, the narrowest part of the cranium is brought first into apposition with the contracted brim, and can be more easily drawn through than the broader part can be pushed through by the uterine contractions.

And for the above reasons it may be possible to deliver a living child by turning through a pelvis contracted beyond a point which would permit of a living child being extracted by forceps.

But when the contraction is below three inches in the conjugate diameter, or where both the forceps and turning have failed, no recourse is left but symphyseotomy, destruction of the fetus, or Cæsarean section; but it seems to me that these proceedings are resorted to more often than is actually necessary.

When the induction of premature labor has been determined on, the precise period at which it should be resorted to becomes a question for anxious consideration, since the longer it is delayed the greater are the dangers.

When the contraction is so great as to necessitate the induction of labor before the sixth month or before the child has reached a viable age, it is preferable to resort to an early production of abortion. The operation is then resorted to not for the sake of the child, but to save the mother from the risks to which she would otherwise be subjected. For in these cases the mother alone is concerned. The operation should be performed as soon as we have positively determined the existence of pregnancy, as no object can be gained by waiting until the child is developed to any considerable extent, for, the less the fetus is developed, the less will be the pain and risk to the mother.

RIGHT OVARIAN TROUBLES WITH APPENDICELE
COMPLICATIONS.*

BY W. LOUIS HARTMAN, M. D.

Surgeon to Syracuse Homeopathic Hospital.

It is generally understood that appendicitis is more prevalent in the male than in the female. This is very easily explained when the anatomical relations are taken into consideration. In the male the appendix receives about one-half the blood that it does in the female subject, therefore, in the latter case, it is less liable to inflammatory conditions and necrosis. The vascular supply to the appendix of the female is the appendicular artery, the blood supply coming from the appendiculo-ovarian ligament. Thus the appendix in the female having the auxiliary blood supply, the appendicular artery is not as well developed as in the male, so you can readily see that in case the appendiculo-ovarian ligament becomes impaired, as it does in diseases of the right ovary, it is impossible for the appendix, under such circumstances, to withstand as much as that of the male.

In cases where you find chronic appendicular conditions existing, you will usually find the right ovary and tube involved. There will be a cystic degeneration of the ovary with a chronically enlarged and inflamed fallopian tube. Very often it is difficult to diagnose chronic appendicular trouble in the female, as the pain may not be referred to McBurney's point at all. These cases, however, will suffer more acutely during the menstrual period. The pains in these conditions are not like those of ovarian dysmenorrhea. I mean by that there will not be that dull, heavy pain preceding the flow, but it will be more of a lancinating character, usually beginning immediately before or at the time the flow begins. This may not accompany each menstruation; it may depend somewhat on the condition of the digestive tract.

There are two or three symptoms which should lead one to investigate. One is the cramp-like pains between menstruations, caused by taking cold or intestinal indigestion, the latter

* Read before the New York State Homeopathic Medical Society.

of which is almost constant. You will find your patient unable to digest starchy foods; there will be excessive flatulence. Patients will complain that at times they become so bloated that it is impossible for them to get their clothes around them. This is an uncomfortable feeling, but not necessarily associated with pain; still, if you make deep pressure you will find a tenderness in the appendicular region, and at the same time the sharp pain complained of will be referred to an entirely different part of the abdomen. I will report at this time several cases which had existed from two to four years with this condition, where the ovaries were supposed to be the primary cause and real offenders. Now, where there has been an attack of appendicitis in the female we are quite liable to have ovarian, or more particularly, tubular, trouble following.

My observation has been in the last year that the appendices in the female are longer than in the male. In cases of chronic appendicitis the pain will be referred, as a usual thing, to the distal end; therefore, it may be in the pelvic cavity or it may be up under the liver, usually referred to the right side. In two or three cases of fulminating attacks, where there has been a chronic history, the pain has not been referred to McBurney's point as much as at the brim of the pelvis, either right or left. The following cases will illustrate:

Miss B., aged nineteen, college girl, had complained for about two years of painful menstruation; also lancinating pains radiating over the abdomen between the menstrual periods. She had never complained of soreness in McBurney's point, but had indigestion more or less when she was not particular with her diet. This indigestion assumed the intestinal form, and the principal symptom was flatulency. On Friday morning she was taken with slight pain in the left side; not so severe, however, as to prevent her attending school. In the afternoon the pain became more severe. On Wednesday and Thursday she had what she called her menstrual pains, which usually preceded the flow. I was called in consultation with Dr. Albertson of Oswego, the attending physician, on the Sunday morning following. Found patient with pulse of 130, drawn facial expression, flabby tongue, with imprints of

teeth, temperature 100°. Upon examining the abdomen there seemed to be very little tenderness over McBurney's point, but about one-half inch above and one inch to the right of the middle of Poupart's ligament there was an extremely sensitive point, and dullness extending toward the right parietes. I confirmed the diagnosis, that of fulminating appendicitis, and advised immediate operation. The patient being prepared, anæsthetized, and placed on the table, the abdomen was opened, a large abscess discovered, which was incised and drained; patient made an uneventful recovery.

Miss H. W., aged twenty-two, was referred to me for enlarged lymphatics of the neck. In obtaining her history she told me of a menstrual trouble she had had for about four years, not constant, however. Sometimes the flow would appear without pain; then again there would be excruciating pain in the right ovarian region. She also complained of indigestion, which caused excessive flatulency. She had complained during all this time of pains radiating occasionally through the entire abdomen, but referred more particularly to the right ovarian region. She was sent to hospital, prepared for operation on the neck, and I told her I would at the same time make an examination of the uterus and ovaries. Upon examination I found an enlarged ovary and tube. Twenty-four hours after the operation on the neck she was taken with what she called her cramps of the stomach, but I immediately made diagnosis of appendicitis. She became better in twenty-four hours' time, but there was still soreness in this region. I advised operation for appendicitis, and upon opening the abdomen I found the appendix, with the right ovary degenerated, and inflammation of the right tube. For three years this patient had been unable to eat starchy foods, but within ten days following the operation she could eat anything with impunity.

Miss A. W. of Northwood, Ia., aged twenty, had been in good health up to four years ago, when she was taken with what was called by her physician "cramps of the stomach," which lasted about forty-eight hours. There seemed to be no localized tenderness at the time, but from that day on she had intestinal indigestion. Menstrual flow increased and was

irregular. At times it would be very painful, and then again she would go through with very little pain. This pain was of the same character, radiating over the entire abdomen; would usually cease two or three days after menstruation would stop. There was nausea and vomiting. Occasionally she would have these pains between periods. She was unable to digest starchy foods, and complained of excessive flatulency. Very little tenderness over McBurney's point, but tenderness about two inches lower down. Bimanual examination of the right side revealed an ovary about three times its normal size and an enlarged tube, both of which were very sensitive to touch. My diagnosis was cystic degeneration of the ovary, with salpingitis; also chronic appendicitis; and I advised operation. She was sent to the hospital, where I opened the abdomen and found my diagnosis was correct, the appendix being over seven inches long, was hanging downwards, and was densely adherent with old adhesions. The patient made an uneventful recovery, and up to this time, which is some eight months, since operation, she has been in perfect health.

If time would permit, I could cite a great many similar cases which have come under my observation within the last two years.

Now, the point I wish to make in this paper, first, is, the importance of making a thorough physical examination when we have patients suffering with what seems to be ovarian pain; second, the danger of allowing these cases to go unrecognized. We do not do our duty when patients consult us with a chain of symptoms like above cases, until we have made a thorough physical examination, for these cases are chronic, recurrent appendicitis; and we all know such conditions are dangerous, and are liable to have a fulminating attack at any time, and be at death's door before we are aware it is coming on; third, where this condition exists together with ovarian and tubular troubles, there is absolutely no cure without an operation. If in these cases you do not find pus, you get another condition which is nearly as bad—chronic invalidism, neurasthenia, etc. It behoves one to watch these cases carefully, as the symptoms of salpingo-oöphoritis are so nearly allied to those where

the appendix is complicating the trouble. There are points of difference, however.

The pain in the salpingo-oöphoritis is principally referred to one or the other ovarian region, the left more often than the right, and instead of the pain being sharp and lancinating, it is usually of a dull, steady, aching pain. Sometimes both varieties are present, but they do not radiate throughout the abdomen, but are confined to the pelvic cavity, which is aggravated by defecation, pain lasting an hour or two after the act. We must not allow ourselves to become confused by the nausea and vomiting, flatulency and constipation, because these may exist in both.

Physical examination will reveal more and be a greater aid to a differential diagnosis than anything else; in fact, it is the only thing of which I know whereby we may differentiate, and even then it is often hard to be positive. Where the appendix is involved, the pain is liable to come on between menstrual periods as well as at the time, otherwise only during menstruation, which assumes about the same character throughout the flow.

It has been my purpose more particularly to call this to your attention, than to give a clean-cut differential diagnosis, which is next to impossible.



**TWO CASES OF EXTRA-UTERINE PREGNANCY—
ABDOMINAL SECTION; RECOVERY.**

BY EDWIN A. NEATBY, M. D.

The following cases, occurring as they did within a period of one week, proved at the time of great interest. They illustrate two of the many varieties of ectopic gestation, and the first case at least is one of sufficient rarity to justify its being reported, apart from other reasons.

Case I.—Pregnancy of six weeks' duration, in the left fallopian tube; rupture into the broad ligament; enormous hemothecoe; no trace of embryo found, but chorionic villi in the tube; operation involving removal of fallopian tube and tubal mole and incision and drainage of sac; recovery.

The young woman the subject of this condition was sent up in haste one Sunday from Exeter, by Dr. Tindall, and her state fully warranted the urgency pleaded by him. She was at once admitted under my care into one of the private wards of the hospital. It is my duty to state that the recovery of both these patients is largely due to the skill with which they were anæsthetized by Dr. Cook, one of the physicians to the hospital, and to the valuable assistance afforded me by Dr. Stonham.

I shall report the case as its features presented themselves, that the steps and stages in diagnosis and treatment may be evident. The facts, as stated by the patient and by Dr. Tindall, are as follows:

Patient, æt. twenty-eight, married four and a half years; no pregnancy; always suffered from dysmenia; menstruation usually lasted four days, and was scanty. She came to London on June 16th.

Eight weeks previously menstruation set in after an interval of six weeks (i. e., after a delay of a fortnight); a similar delay had occurred twice before, one year and two years previously.

Seven weeks ago was taken ill. After cycling a journey to which she was accustomed she was suddenly seized with "gripping pains like knives" in the private parts, lasting

badly ("in agony") about an hour. She could not stand, but "crouched on the floor." Then bleeding came on, and she went to bed and had morphia. Next day she went downstairs, but the pain returned in the evening and next day. This lasted on and off for a week, and six weeks ago pain increased much—"more pain in groin and private parts, like pulling her inside out." A consultation was held, and the consultant (according to patient) diagnosed "inflammation of bowels, front passage, and womb." Hemorrhage continued.

Four weeks ago.—Latterly pain chiefly in bowels and back, which felt as if breaking. She never lost consciousness; felt very ill, pain increasing.

One week ago.—Passes thick clots, gets out of bed, passes water very frequently (half to one hour); lower abdomen swells before she voids urine, and micturition removes some of the swelling.

Condition June 16.—Still pyknuria; pain is now comparatively easy after her journey; the abdomen feels swollen, and she wants to pass water; she says "jelly" passes by the bowel; took oil yesterday.

Dr. Tindall reports that the swelling observable in the abdomen only became obvious externally one week ago, and that it has increased daily.

Patient is using morphine suppositories every four hours; bowels only act with medicine. Hemorrhage almost ceased yesterday. Mouth sticky; tongue clean.

Physical examination.—Abdomen distended, especially below umbilicus on the left side. The distended bladder occupies the hypogastrium to within two inches of the navel. The rest of the abdomen below the umbilicus is occupied by a hard or tense mass. No fluctuation or thrill is obtainable. Both flanks are clear.

Per vaginam.—The posterior fornix is bulged downward, nearly to vaginal orifice. Cervix is drawn very high up behind and above symphysis. Limits of uterus not clearly made out bimanually. The contents of the mass seem clearly to be thick fluid. Rectal examination is not painful; it reveals nothing further.

June 17.—Re-examination. In middle line uterus can be

felt in front of the mass; the cervix even is felt between the examining fingers above the level of the symphysis. On auscultation only intestinal sounds are heard. Thrill and fluctuation felt to-day. Patient has had a fair night without sedatives. There is no vomiting, nor has there been any to speak of. Patient lies with knees drawn up. The temperature since admission has varied from 98° to 99.2° ; pulse between 68 and 80.

Consideration of the physical signs enumerated above led to the conclusion that the diagnosis lay between the following conditions:

(1) Retrogression of the gravid uterus, with a growing anterior segment.

(2) A soft and cystic myoma occupying the broad ligament and filling the pouch of Douglas.

(3) A broad ligament cyst, with hemorrhage into the cyst.

(4) An ectopic gestation, with rupture of the tube into the broad ligament.

No. 1 was rendered improbable by the alleged rate of growth, which also put No. 2 out of court. Moreover, physical examination had fairly definitely determined that the uterus lay on the front of the tumor, but little enlarged. Again, leaving that fact out of count, the cervix is rarely found so entirely above the symphysis pubis in retroversion.

No. 2. In addition to the history being opposed to myoma, the mass seemed on palpation too soft and thin-walled for that condition.

No 3 was an extremely likely diagnosis; but

No. 4 was better supported by the fact that hemorrhage into these thin-walled par-ovarian cysts is not very common, because the history, though not definite, was in favor of some condition associated with pregnancy, and because the growth was abnormally rapid, even for a cyst with hemorrhage.

I must admit that though I leaned to ectopic gestation, I called to mind a large broad-ligament cyst filled with thick treacly fluid—changed blood—sent to me by the late Dr. Carfrae, in which the physical examination yielded somewhat similar results. In that case, however, the growth of the tumor had extended over months. Regarding the symptom of hemorrhage, though it is a very common, if not constant, ac-

companiment of extra-uterine pregnancy, I remember a case where a very similar kind of bleeding had persisted for weeks in association with a pair of broad-ligament cysts, which had dragged the uterus up into the abdominal cavity. A certain reserve was therefore maintained as regards diagnosis, although the impression, emphasized by the state of the temperature and pulse and the extreme illness of the patient, made me lean towards mesometric gestation.

June 18.—Cœliotomy. The stages of the operation were as follows:

The incision was begun near the umbilicus and extended down for about two inches in order to avoid wounding the bladder. It was subsequently extended up and down—in the latter direction the fascia was divided lower than the peritoneum, for the bladder early became visible and had to be pushed out of the way.

A large dusky-red sac was displayed when the abdominal cavity was sufficiently opened. It extended as described in the notes already. The left anterior wall of the tumor was broad ligament, with the round ligament running upward and outward across it from the left uterine cornu. The summit of the mass in the middle line was formed by what proved to be a much dilated tube occupied by a "mole"; this communicated by a tear at its lower border with the large sac.

The sac, above and to the inner side of the round ligament, was twice punctured by an aspirating needle (syringe). The first time nothing was withdrawn; the second time the syringe became filled with clear fluid, simulating simple par-ovarian cyst. When, however, the mass was pierced by an ovarian trocar absolutely nothing escaped. The trocar was followed by the finger, which quickly discovered the true state of affairs—a sac full of black, soft, comparatively recent blood clot. This was broken up and removed by the fingers and by washing out, but it was not possible to remove the whole without unduly prolonging the operation. The distended fallopian tube was next removed, and the edges of the sac were stitched to the parietal peritoneum. The upper part of the wound was closed separately, and a small gauze drain was inserted. A Keith's glass drainage tube was inserted into the sac, down

into Douglas' pouch, and the wound was dressed. Two hours after the end of the operation the pulse was 92. It should have been stated that bowel was found adherent to the sac at the upper part and on the right side. It was not safe to separate this, and it was accordingly left.

The chief features marking the convalescence were severe attacks of colic, chiefly after aperients; a rise of temperature during the second week to nearly 100° on several evenings, together with some fetor of the discharge from the sac, which was washed out once or twice a day; a rapid return of the uterus and bladder to their normal position in the pelvis. A small sinus still persisted when she left the hospital July 23. She could walk well and was gaining flesh.

Case II.—Pregnancy of fourteen weeks' duration in the right fallopian tube; hemorrhage into the sac, and death of embryo; hemorrhage from abdominal ostium; paucity of symptoms; hematosalpinx and cystic ovary on left side; operation involving removal of sac formed by the blood mass, and of both tubes and left ovary; drainage; recovery.

This patient was introduced to me by Dr. Weaver, who kindly transferred her to me for operation, which, as in Case I., was performed at the hospital and six days after the last, Dr. Weaver being present as consulting physician. F. S., æt. thirty-two, married ten and a half years; one child; no miscarriage.

June 23, 1901.—History. Patient was quite regular until the first week in March, which was her last ordinary period. Amenorrhœa until six weeks ago, i. e., the first week in May. She had from that time constant colored discharge until the present date, more or less. She had some pain during the period of amenorrhœa, was in bed three weeks of that time—"the pain used to catch" her in the hypogastrium and "up the two sides of the abdomen." There has been no bad pain during the past six weeks.

Patient remembers no illness except quinsy. The bowels have been regular for fourteen days, and were so before the amenorrhœa; during the interval they were constipated; micturition is normal; some dysuria during the early part of ill-

ness; no vomiting lately. Menstruation is usually regular and painless.

Physical Examination, Per Vaginam.—Cervix points strongly backwards to the tip of sacrum; body bulges the anterior fornix. A mass is felt bimanually, extending upward to within one and a half inches of umbilicus. In front of the mass, to the left of the middle line, lies a smaller elongated mass, having a direction from above downward and inward. This small mass appears to be contiguous to and perhaps adherent to the main mass, and does not seem to be incorporated with it. Douglas' pouch is occupied by a semi-elastic body continuous with the main mass. The part described as the main mass, seems to be the uterus much enlarged, and to the extreme left of Douglas' pouch is a small elastic portion which may be continuous with the small abdominal mass. This smaller mass appears to be an enlarged fallopian tube. The large mass described as uterine may be either a soft myoma or a molar pregnancy. There is no evidence of a living embryo. The mucous membrane is hard and adherent; no uterine souffle is audible. The colored (brownish) discharge is somewhat offensive.

The above notes were taken prior to the operation, and the conclusion that the main mass was the uterus was not confirmed when the relations of the parts were fully demonstrated.

Operation.—A. C. E., by Dr. Cook; assisted by Dr. Stonham, June 24, 1901. Abdominal wall very vascular on incising it; peritoneum (parietal) stained with blood pigment. The small mass to left of middle line, described as an enlarged tube, was found to be an elongated cyst, with curves and constrictions lying in front of body and fundus uteri, adherent to omentum, to uterus, and to abdominal wall. In shape it resembled a dilated tube, in color (on the surface) it was yellow ochre, and looked as if containing feces. In reality it contained dark semi-fluid blood. The wall of it was formed only of fibrinous material. After the removal of a considerable portion of omentum adherent to the small mass, and to the main mass, a large swelling behind and above the uterus was found in the pelvis; the uterus was pushed down and forward by this swelling, which in color resembled a

bruise, with varying hues. The mass extended right across the pelvis, between the posterior surface of the uterus and the sacral hollow. It was intimately adherent to small intestine, and was found to be a large blood clot, with a distinct limiting membrane apparently of fibrin. It lay quite outside and apart from the fallopian tubes, both of which were closed and dilated and contained dark semi-fluid blood. There was no obvious rupture of either tube, and it is probable that the source of this blood was a rupture of an early gestation sac into the lumen of the still patent tube, and that the blood escaped gradually into the pelvic cavity from the patent orifice. The large mass appeared to be wholly clot, no trace of embryo being discovered by naked-eye examination on incision. Both tubes and the right ovary were removed. Much difficulty was experienced in separating the adhesions, and hemorrhage was fairly free. The left tube ruptured, as also did the hematomatous mass during removal, and some of the adherent limiting membrane was left attached to bowel and posterior surface of uterus. The abdomen was thoroughly washed out with saline fluid, and a gauze drain inserted. The wound was closed with two silk-worm sutures through all the layers, with continuous fine silk in the peritoneum, and continuous catgut for the sheath of the rectus and silk for the skin.

The recovery of this patient was entirely free from anxiety or—after the first few hours—distress. The bowels were opened after forty-eight hours, the drainage gauze was removed on the second day, and the stitches on the tenth. Patient left the hospital three weeks after the operation.

Remarks.—The advantage of narrating cases of this kind lies in the fact that time is afforded for reflection and material for thought, with the light of the after-event which should bring added wisdom.

To take Case I. first. Even if we do not accept the most modern teaching that these cases, which were formerly classed under the heading of "pelvic hæmatocele," are practically all due to extra-uterine pregnancy—unless possessing some gross historical features or some obvious physical evidences of other conditions—there is here no doubt about the origin, for the remains of chorionic villi were found. Now, as these cases of

rupture into the broad ligament ("extra-peritoneal rupture of the sac") are not only much less frequent (one to three), but also much less dangerous than intra-peritoneal ruptures, the question may be discussed first as to whether operation is requisite at all. It is well known and it is here readily allowed that many of them recover without any operative measure being resorted to. Blood is effused into a closed cavity, the pressure of the mesometric tissue is sufficient in many cases to arrest the bleeding before it is serious, air is excluded, and with rest all may go well. The fluid part of the blood becomes absorbed, the mass contracts, and in course of time the bulk of the trouble clears up, and nothing but some insignificant physical signs, without corresponding symptoms, are left, and they require no treatment.

It may be laid down as a general principle that the anatomical diagnosis of the extra-peritoneal situation of the blood poured out is not in itself a sufficient ground for a decision either for or against operation. The rate and quantity of the effusion and its effect on the patient, both locally and generally, form a better guide in weighing up the desirability of adopting surgical measures. It is also undeniable that some at least of these cases end in suppuration, a pelvic abscess containing fetid pus, presumably due to infection from the bowel which lies so closely in contact, being thus formed, with its accompanying manifestations of sepsis. Applying the above common-sense rule to the present case, we find that both pulse and temperature negatived the presence of any septic infection; but the patient had been ill seven weeks, and she was not getting better; the pelvic mass which operation showed to be blood, as was supposed, was greatly disturbing the relations of the viscera of the pelvis, causing pain and disturbance of function; moreover, the mass was steadily enlarging, which meant, it were a hematoma, that hemorrhage was still going on; and the patient's strength was gradually lessening. These were the reasons which presented themselves in favor of operation, and on looking back they seem adequate, and the course adopted one justified by the result.

Another point which will bear discussion is the site of operation. The difficulty of draining per abdomen a sac extending

to the floor of the pelvis is familiar enough to all who have tried it, and is readily understandable. The alternative is the vaginal route. It would have been easy to incise the posterior vaginal vault, make a free opening, and drain, but in this case there were weighty objections against that plan—objections, some of which must be present in all such cases.

Firstly, there was no certainty that the hemorrhage had entirely ceased; even if we had waited a day or two, and arrest of the enlargement of the swelling had led to the conclusion that hemorrhage was stayed, there would still have been some risk that the disturbance of parts, due to the evacuation of so large a quantity of blood, would cause the bleeding to recur.

Secondly, it was impossible to state the date of the rupture, and therefore the age and character of the embryonic or fetal structures which might occupy the broad ligament.

Thirdly, no information as to the state of the fallopian tube was in our possession, and it was clearly undesirable to leave it to nature to be dealt with.

There are some points of interest in this case which deserve attention. It is usual that rupture into the mesometrium should occur from the middle third of the tube, and this took place in my patient. On the other hand, I cannot say that it is usual for a tube to rupture at so early a date into the broad ligament. It is more common for this form of rupture to occur during or after the third month, by which time the placenta is fully formed and isolated. The tube forms a large sac, and the placenta frequently remains therein, while the fetus is extruded into the broad ligament, and may continue to develop. In the present instance the probable course of events was this: At an early date, perhaps the third or fourth week (and possibly due to the bicycle ride), hemorrhage took place into the space between the amnion and the chorion in sufficient quantity to terminate the life of the embryo, which at this early age is rapidly and completely absorbed. But hemorrhage may recur, and a well-marked "mole," increasing in size, with a laminated structure occur. In this case it attained the diameter of about four centimeters, and was ovoid in shape. So far in these cases the fault lies with the embryo, as shown by Mr. Bland Sutton, who demonstrated that the fresh blood from

the subchorionic space contained nucleated red corpuscles. The stretching of the tube next leads to rupture, and the rest of the bleeding—the chief and important part, as far as the progress of the case is concerned—comes from the maternal tissues. As shown in this case, a slow and long-continued bleeding may go on into the broad ligament. It is, I think, unusual for so early an extra-peritoneal rupture to cause so large a tumor. In some cases the hemorrhage surrounds the rectum, and the case cannot be distinguished, by physical signs, from pelvic cellulitis; but this condition did not exist here. Nor was the parietal peritoneum stripped up, as is frequently the case. The appearance was more as if a broad ligament cyst had become filled with blood.

Case II. is, I believe, a more common kind of case, being an example of an early tubal abortion. The blood gradually escapes from the open fimbriated extremity, perhaps with the embryo. No further development in the tube takes place, but the irritation set up by the bleeding causes matting of the intestines, which become adherent to the uterus, to the tubes, and to the clot. In course of time the abdominal ostium becomes closed and no further bleeding takes place into the pelvis, but a hematosalpinx is left. This is the fourth case I have operated on of this description. The leading features in all were alike. A large, ovoid mass filled the pelvis behind the uterus, which it pushed forward. This mass is formed of laminated clot, so firm on the outside as to appear to possess a distinct capsule, which at first I took to be fallopian tube tissue. In no case has the microscope found this to be so. This solid clot is intimately adherent to uterus, Douglas' pouch, tubes, ovaries, and intestines; and in this case it could not be completely removed from the posterior surface of the uterus, etc. The curious chain of clot, like a convoluted fallopian tube, must have been due in some way to the molding or churning influence of the bowels upon slowly effused blood. It produced a curious and deceptive condition, not correctly interpreted until the substance was incised when outside the body.

Tubal abortion is much more common than was at first supposed, and probably many such cases recover without surgical

aid. Could this patient have been under careful medical observation and the most favorable environment from the first, it is possible she might have been spared operation—at least, if a correct diagnosis had been made. The diagnosis of dilated tube, together with a mass of uncertain nature in the pelvis, necessitated exploration and, finally, removal.



PREVENTION AND MANAGEMENT OF INFECTION OF THE BREAST DURING LACTATION.*

BY C. S. BACON, M. D.

Infection of the breast should be carefully distinguished from simple congestion of the breast, caused by the establishment of the milk secretion, or by allowing too long an interval between nursing, and also from the so-called milk fever. It is generally due to a genital wound infection. The infecting agents are generally staphylococci, and sometimes streptococci. They are most frequently brought to the nipple by the uncleaned fingers of the mother or nurse, or by the face of the child, contaminated with minute particles of pus from sore eyes or from small boils.

The diagnosis between infection and simple congestion is determined by the presence of chills and fever in infection. The determination of the question, whether the infectious process has resulted in the formation of an abscess or not, is made by the use of diagnostic aspiration with a large hypodermic needle.

Before the beginning of lactation, careful washing of the nipple with soap and water is all that is needed to make its skin healthy and resistant. All measures tending to improve the general health improve the resistance of the tissues, and help in the prevention of breast as well as other infections. After nursing begins, we should avoid contamination of the nipple with bacteria, avoid nipple wounds, and heal them as quickly as possible when they once appear. The practice of nurses and patients of pulling on the nipple should be for-

* Paper for the Mississippi Valley Medical Association, held in Asheville, (Author's abstract.)

bidden. Any pustules on the face or neck of the child must be carefully evacuated and the child's face must be carefully cleaned before it is put to breast. Suppurating glands of Montgomery must be carefully opened, evacuated, and then sealed with collodion before the child nurses. The nipple should be washed with clean water before nursing, and with seventy-five per cent. alcohol immediately after nursing, and then protected from the clothing by a layer of clean gauze. The child should not be allowed to remain too long at the nipple on account of the danger of macerating it. When fissures or abrasions appear, a nipple shield should be used. The shields on the market are frequently improperly made, and may themselves injure the nipple. The best shield is made of glass with the nipple directly attached. The bowl should be so large and deep that the nipple is not constricted or pulled too close against the end. The shield should be carefully washed after each nursing and put away dry.

When nipple wounds become infected and the symptoms of chills and fever indicate a deep infection of the breast, nursing from the affected breast should be entirely stopped, and the breast should be supported and put to rest by a proper bandage. The simple circular bandage, the double Y bandage, or the roller bandage of Harris may be employed. A very valuable adjuvant to the bandage is the ice bag continually applied to the affected lobe.

Under this plan of treatment most cases of infection will disappear in sixty to eighty hours, when nursing may be carefully resumed. If in spite of this treatment slight fluctuation or an increase in temperature raises the suspicion of the presence of pus, the aspirating needle must be used. If matter is found, it should be opened at once. Infiltration anæsthesia renders what was formerly a formidable operation a simple procedure. This small incision is kept open for two or three days, but the breast in the meantime is kept well bandaged and supported. Later abscesses are to be opened as soon as their presence is satisfactorily determined. In this way the large abscesses, involving a quarter, sometimes one-half, of the breast, with their attendant drain upon the patient, are avoided.

A CASE OF RETROVERSION OF THE GRAVID
UTERUS.*

BY ALEX. H. CROUCHER, M. D., F. R. C. S. ED.

Mrs. C., æt. twenty-eight, came under my care on April 23, 1901. The patient was of spare habit and nervous temperament and complained of great pain in the lower part of the abdomen and in the sacral region; there were also much bearing down and dysuria; these symptoms had lasted in varying intensity for about six weeks.

Patient has been married four years, and three years ago was confined, but the baby only survived its birth a few weeks.

In June, 1900, patient miscarried at about the third month of pregnancy; the apparent cause of this mishap was fright, caused by a large dog suddenly jumping up at her; a day or two after this occurrence hemorrhage came on. She was seen by her usual medical attendant, who examined, and found the uterus displaced; he replaced it, but the pregnancy terminated.

Course of present illness: Patient last ceased to menstruate on January 10 of this year; abdominal pain and discomfort ensued soon after. At the end of March she had an attack of bronchitis, which left her weak.

On April 9 patient was unable to urinate. Her doctor was sent for; he passed a catheter and drew off the urine, but did not examine further.

On April 14 the doctor was again sent for, as Mrs. C. was suffering much pain; he ordered her hot baths, and promised to see her next day. As he did not come, and I happened, on April 23, to be visiting a friend of the patient a few doors off, I was asked to see Mrs. C. The patient remarked that she thought her own doctor was getting on too well, and did not care to be troubled with her case, although she was not a club patient; this seemed, as regards myself, rather a dubious compliment. Having lost one child and had one miscarriage, Mrs. C. was very anxious that this pregnancy should go on to full term.

I found the patient with the symptoms before mentioned,

* British Homeopathic Congress, 1901.

and urged an internal examination, which was consented to. The examination revealed the cervix and os high up anteriorly, close behind the pubes, and a soft mass filling up the posterior and lateral fornices, which mass was pressing forward and upward the cervix uteri; the diagnosis was retroversion of the gravid uterus.

As there was no history of previous inflammatory trouble, I hoped to be able to replace the misplaced organ with ease.

The bladder was next emptied with a long red-rubber catheter, but only a few ounces came away; this was at 5.30 p. m.

Attempts were made bimanually and in the genupectoral position to replace the uterus, but without success; in spite of the manipulations being gently performed, much pain was caused. Not caring to use much force, and having a few years ago treated a similar case successfully with an india rubber air-ball pessary inserted into the vagina and there distended, I left her to get such an instrument, and returned an hour later, in the meantime giving the patient belladonna 1 x *mij*, half-hourly. Having got the needed instrument, at 6.30 p. m. the air-ball pessary was introduced into the vagina and distended with air; this caused much pain, but it was left in situ.

At 9 p. m. patient's husband came for me and requested me to visit his wife at once, as she was in great pain and fainting continuously. On arriving at the house I found it was so, and removed the air-ball, and found that replacement had not occurred. The bladder, however, was full. About a pint and a half of urine was removed; this gave much relief. The instrument was again inserted, and a sedative administered, as it seemed most important that the displacement should be relieved as soon as possible and the pain subdued.

Next morning at 8 a. m. I visited the patient, removed the pessary, and examined; the uterus had become replaced in its normal position, micturition was naturally performed, the abdominal pain and bearing down were absent.

That retroflexion and incarceration of the gravid uterus is a serious condition is well known, and in my opinion it is often the cause of abortion, if of nothing worse.

At the present time I have a patient who miscarried three weeks ago. I saw the patient a fortnight later for continued hemorrhage, and found the uterus retroflexed, and feel sure that the abortion was caused by the uterus becoming pregnant in this malposition.

I treated this patient four years ago for a retroflexed uterus. Norris and Dickinson, in their "Text-book of Obstetrics," mention a series of fifty cases of death from retroflexion of the gravid uterus collected by Treube. He found that out of the fifty cases of death from this cause, thirteen died from uræmia; eleven from rupture of the bladder; six from sepsis; ten followed peritonitis and cystitis; three died of pyæmia; two by rupture of the peritoneum; and five cases followed accidents during an effort to replace the uterus.

Where the uterus is bound down by adhesions it is of course a serious added danger to the efforts of reposition, and may entirely defeat our efforts.

These statistics are amplified by Gottschalk, who collected sixty-seven deaths from backward displacement of the pregnant uterus, the immediate causes of which he describes as follows: uræmia and collapse, sixteen cases; septicæmia arising from the bladder, four; gangrene of the bladder, three; rupture of the bladder, eleven; peritonitis from disease of the bladder, seventeen; pyæmia, three; rupture of vagina and peritoneum, two; improper efforts at reposition, five; gangrene of intestine and peritonitis, one; occlusion of intestine, one; and four cases in which the immediate cause of death is not described. Gottschalk in his paper reports a case in which the retroflexed uterus produced intestinal occlusion without ileus. He performed abdominal section, but was unable to save the patient.

Thus it is seen that the displacement is of very serious import, and should be recognized early and treated accordingly.

Ectopic gestation may be simulated by a retroflexed pregnant uterus, as in a case reported by Barbour, in which the physical signs of retroflexion in the pregnant uterus were perfectly present.

Cohnstein, in treating five severe cases of this trouble, did so thus: He first emptied the bladder by a stiff catheter, and then

drew down the cervix and vaginal wall with a tenaculum, while the cervix was pressed backward by downward pressure behind the symphysis. While the cervix was drawn downward and backward by a tenaculum the fundus was raised with the free hand of the operator.

Mrs. C. is doing well, and I hope will go on to full term.

Current Comment.

E. S. Wright, M. D.:

I do not consider it the *first duty of an obstetrician* upon being called to a case to proceed with an examination, but rather learn to interpret the progress of the case by observing the effect of a few pains and other points of interest which can be determined by an external examination of the abdomen. I consider it a great point gained to be able to attend a labor without a single vaginal examination; at the same time know the progress of the case by other means. This is not an easy matter, however, and often, in the interest of all concerned, a vaginal examination becomes necessary. The use of synol soap as a lubricant and antiseptic has given me great help in accomplishing the work desired, both in cleansing the field of labor and hands of operator. I would like to make a point against the statement sometimes made that instruments can be used with impunity in all cases, as I am informed some persons teach. They have their use, but such a general statement as above should only be mentioned to be condemned.

Another point I have been able to accomplish with a certain amount of success is the avoidance of troublesome hemorrhoids, so common as a sequel of labor, by supporting with a cloth dipped in hot water at the height of a pain the rectum with its exposed mucous membrane and enlarged veins. In fact, hot water to the perineum generally possesses considerable virtue, as well as being a comfort to the patient, by stimulating the circulation in the blanched and pressed parts.

One of the foremost duties of an obstetrician, when he ac-

cepts a case, is to make up his mind to watch and wait the progress of a normal labor, without permitting other matters to thrust themselves upon him and cause him to seek justification in haste, frequent examination, instruments, etc. The condition of the patient is a better guide than a desire on our part to get through and go. This taken into consideration will bring to us often one of the most monotonous routines of life in cases that we have reason to believe should get along better; why a multipara detains us beyond many first labors is not clear, but they do come, and I have sought as an explanation that former lacerations have healed and left scar tissue to dilate, instead of muscular fiber. Another likely cause is inflammation of the cervix, persisting for a long time, creating a similar condition by following the pathological rule of inflammation—first hyperæmia, congestion, cicatricial tissue, and contractions.

The immediate repair of perineum has been a rule of my practice, let it require one or many sutures, and I find silk-worm gut, fastened with shot, as nice as anything for the accomplishment of this purpose.

I have not deemed it of sufficient consequence to quibble over the minor point as to whether a patient needs a binder or not. I use them, and, certainly, from the way they stay, I cannot see how it is possible for any harm to result. They are comforting and serve as a point for pinning a cloth to support the cotton and gauze worn to absorb discharges.

The uterus, as a rule, is carefully looked after for the first twelve or twenty-four hours, to insure contractions and possibly save some after-pains. Where the uterus is not misplaced and drainage is good, little or no difficulty arises, but in misplacements and poor drainage I have met the greatest difficulty to keep secundines in a healthy condition and prevent sepsis. These are the cases that will cause trouble and necessitate irrigation with or without curetting, preferably, if possible, simple douching without the use of a curette.

Lately I have adopted a plan at the end of a week to use under proper precautions a douche, the same as careful women do after an ordinary menstruation. The mental effect is at least good and the physical, at this period, not objectionable.

John W. Kyger, M. D.:

It is a well-known fact in *infant feeding* where artificial sterilized foods are constantly resorted to, some means is required to overcome the tendency to the development of scorbutis. Raw beef juice, orange juice, etc., are frequently used, and with beneficial results, but my experience has led me to the conclusion that we have in *pineapple juice* an agent which is superior to any other. It not only possesses anti-scorbutic qualities, but it is also an agent possessing active properties in assisting digestion and assimilation. One teaspoonful of pineapple juice added to one-half pint of milk will coagulate the entire mass in fifteen minutes, doing it as thoroughly and effectively as the essence of pepsin.

I have frequently had children (following attacks of various kinds of stomach and intestinal disorders, in whom the process of digestion and assimilation seemed to be lost) rally and recover rapidly by using frequently small quantities of this agent. It possesses the power of assisting digestion by stimulating the gastric glands to increased action. This with its anti-scorbutic tendencies renders it one of the most valuable agents we possess in treating chronic gastric and intestinal disorders in children.

♦ ♦

Edward Reynolds, M. D.:

It is a fact vouched for by the experience of all gynecologists who are not interested solely in operating, that more than fifty per cent. of the women who seek their care are suffering from *defective action of the eliminative organs*; from chronic, though perhaps not complete, constipation, and defective elimination of solids by the kidneys.

Even in the presence of definite lesions in the pelvic organs, no permanent relief of symptoms can be hoped for until these underlying constitutional causes of neuralgic pain and general ill health have been removed. The first step in the treatment of any case presenting chronic pelvic symptoms should be the collection by the patient of a twenty-four hour specimen of urine, and the estimation by her physician of the total amount of solids excreted, if only by the rough method of multiplying the specific gravity by the quantity expressed in

ounces, when, for a woman of average weight, a result from this calculation of less than 800 grains may be considered as showing a marked deficiency. Such deficiency is most commonly due to a decreased general metabolism, which has been produced usually by too small an habitual ingestion of fluids. The decrease of solids may rarely, however, accompany an abundant excretion of water by the kidneys, and is then a result of an imperfection of function on their part, which must then be looked for. In the first and more common case the physician must, as an essential preliminary to success in the alleviation of the symptoms for which the patient seeks his aid, teach her to ingest large quantities of fluid, by preference water, or, in emaciated patients, milk; and simple as this recommendation is, those who have pursued it will bear me out in stating that no essential point of treatment is more difficult to secure than this. Weeks and sometimes months must be spent in training the patient to drink a proper quantity of water, and if this care is not taken, all subsequent efforts are likely to fail of their real object, that of relieving the symptoms. The moderate use of the ordinary alkaline diuretics, supplemented by the exhibition of minute doses of the mercurials or iodides as stimulants to the general metabolism of the body, may greatly aid in securing a proper elimination of solids. With all this must be combined careful and persistent regulation of the bowels; and every practitioner knows that, simple as it is to recommend a cathartic, there is no more difficult task than to succeed in securing an ample alvine evacuation day after day, and year after year, from the class of women to whom we are referring.



Julia C. Strawn, M. D.:

I have seen, even in otherwise *normal cases of labor*, conditions when the cervix and surrounding tissues remained rigid and tense after prolonged pains with very little tendency to relax or soften. In these cases, aside from the indicated remedy which I always administer, I give the patient quantities of very hot water to drink, even though she insists it nauseates her; this will assist and promote an otherwise most difficult and prolonged labor, as will also having, during the

first and second stages, the patient assume the kneeling position, making the descent of the head more direct. The warm enema which I always have given in the beginning of labor also helps to relax the strictures, and by emptying the rectum and also the bladder the size of the pelvis is increased materially. This softening and relaxation of the tissues should be a precursor to the mechanical stretching to come in a normal case, but many times does not occur; in such instances the use of hot compresses over the perineum for some time before the head descends to cause this tension on the soft parts has proved of very great assistance; in consequence I have had very few lacerations, and these so slight that rarely are they deeper than the mucous membrane.

As the head passes through the pelvis and the tension becomes great on the perineum, I put two rubber finger cots on the first two fingers of my right hand and insert them into the rectum, and thus hold the head in firm flexion, while with the other hand I gradually and slowly work the tissues up and over the head of the child.

♦ ♦

G. J. Engelmann, M. D.:

Over ten thousand observations as to the *time of first menstruation* of American-born women, many with reference to points never before investigated, here or elsewhere, give me ample material for an authoritative solution of the questions involved. These observations, from my own practice and that of helpful friends, are many, and the identity of results obtained in far distant points, Montreal and New Orleans, St. Louis. Cincinnati, and Boston, vouches for their correctness; furthermore, they are corroborated by all previous records, a total of six thousand, in such points as these may cover.

The mean age of first menstruation in this country is 13.9 or 14 years, the same in the United States and Canada. Climatic differences in no wise influence pubertal development within the bounds of the North American continent; the American born, be they of American (14.1), German (14.5), or French (13.6) parentage of the same class, attain puberty at the same age in Montreal, St. Louis, and Boston; the negro does not vary (14.05) whether in New Orleans or St. Louis.

The greatest variation caused by the extremes of all influences is one year, from 13.5 in the girl of highest refinement and education to 14.5, which is the period for the American born of the laboring classes of German and Irish parentage; in other countries the difference between the extremes of social classes is from two to three years.

Refinement, education, city life, nerve stimulation, determine precocious puberty; ignorance, poverty, and manual labor retard; social status in itself means very little; heredity and race have a slight determining influence.

♦ ♦

J. F. Baldwin, M. D.:

Ergot is something which I think has no use in *obstetrical practice*.

I have several times resorted to making lateral incisions to prevent laceration of the perineum. It is better to have one or two incisions high up on the vulva, free from the lochial discharge, than to have the irregular and usually much more extensive tear which nature makes. I approve very much of this method of attempting to avoid rupture of the perineum, although I think it is only called for occasionally. I have never had a case of what I called post-partum hemorrhage. I have never had a hemorrhage which I could not readily control by cleaning out placenta and clots and with the application over the abdomen of cold water or a piece of ice. I was taught not to introduce packing in a case of post-partum hemorrhage. It is done in recent years, but I have always felt a little bit shaky about introducing iodoform. I much prefer to introduce the hand and clean out the clots. I should rather hesitate to use packing, but I know that it is done and that some of the text-books now teach it.

There is a little maneuver which is not mentioned, so far as I know, in the text-books. Rupture of the perineum usually takes place just as the forehead is passing. At this time the orifice of the vagina, encircling the head like a tense cord, is being pushed out beyond the vulva. It is possible in the interval between the pains to push back the upper border of this ring until it slips over and beneath the occipital protuberance. This relieves the tension, and there is apparently a gain of at

least a half inch, which allows the head to go through, as a rule, without rupture. I have demonstrated this maneuver a number of times, and by it have saved many perineums.

I wish to mention the occasional necessity, in order to make haste, of fracturing an arm. Not long ago I met with such an accident. It was a shoulder presentation. I passed my hand up to turn, but the arm got behind the head. The condition of the fetus was critical, as I had learned by touching the cord, and I felt that prompt delivery was essential to save its life. I heard the arm snap as I pulled it down, and on examining it afterward found a green-stick fracture. I am confident, however, that the breaking of the child's arm was essential to delivering it alive.

♦ ♦

Eugene C. Gehrung, M. D.:

The erect position being one of the principal causes of the *excessive and prolonged menstruation*, it is evident that the recumbent position should be observed as much as possible during the process, with light diet and loose dresses. Excessive exercise at least should be avoided as far as possible.

The application of the vaginal tampon, especially in cases where pathologic effects have already been produced by the excessive loss, offers by far the best controlling power, if effectually and scientifically applied, provided, however, that these pathologic effects have not progressed so far as to need the curette or other surgical treatment. Frequently, however, a course of systematic monthly tamponing will come in quite usefully where the object of curettage or other operation has not been fully obtained.

It is surprising to see that the repression of this supposed function does not cause pain nor other disagreeable phenomena whatsoever, and that the complex symptoms called menstrual molimina may cease immediately and completely on the application of the tampon, i. e., the temporary cessation of the flow, to commence again on the return of the latter. It is not less surprising to note how, after a series of monthly repressions, many or most of the pathologic symptoms which have previously resisted every mode of treatment applied or applicable, how promptly and completely they disappear. The du-

ration becomes gradually abridged, the quantity lessened, while the nervous symptoms disappear; the skin loses its sallow hue, red cheeks make their appearance, while the whole system changes toward health. If the tamponing is continued for a sufficient length of time to permit the body to acquire its normal condition of health, the woman may again depend on her own resources and the modified menstruation.

I have now practiced this method for nearly twenty years, and have no reason to regret it; on the contrary, as I have obtained such wonderful results, I consider it my duty to impress it on the profession as a curative and conservative means in appropriate cases. The more completely menstruation is controlled (not suppressed, as some may understand it, but repressed) the better the result.

The tampon acts in several ways: By elevating and sometimes replacing the uterus and adnexa; by pressure on the pelvic and hemorrhoidal vessels; but principally by re-enforcing the otherwise flabby womb, so as to enable its walls to close upon themselves and thus form an obstruction to the otherwise unrestrained oozing from the mucosa. There are exceptions, where the tampon is not the right means to lessen menstruation; these are acute or chronic inflammations of the pelvic organs and their products.

Many cases of nervous or hemorrhagic disturbance have been condemned to the surgeon's knife under supposed diseases of the ovaries, tubes, or uterus, which could have been prevented by repression.

I will now tell how to apply the tampon for repression. Prepare the necessary quantity of sterilized absorbent cotton by soaking it thoroughly in a dilute antiseptic solution, or, better still, sterilized water, as all medicated solutions produce more or less irritation being applied constantly for several days. Squeeze the cotton dry, loosen it up, and tear it into pieces about two or three inches square. Having rendered the vagina and vulva thoroughly aseptic, introduce preferably a bivalve or trivalve speculum, and begin by packing these wads first into the cul-de-sac of Douglas, then along the sides and in front of the cervix, by means of a pair of dressing forceps, until the vagina is completely filled down to the vulva. Brute

force should be avoided, as also too much pressure against the bladder and urethra. When this is accomplished release the screw of the speculum and, while steadying the tampon by the forceps, withdraw the speculum gently. This process should be repeated every twenty-four hours, or as often as there is a return of the bleeding. To remove the tampon use forceps, guided by the index finger in the vagina. All the wads may be tied to a string, kitetail fashion, so as to be removed by one pull.



Edwin Walker, M. D.:

I will briefly discuss the operation of the *dry method*, how it will fulfill the requirements in *abdominal work*. It is convenient to divide our cases into clean and septic ones, including in the latter extravasation of blood and escape of the contents of the hollow viscera. In the clean cases few at this time recommend irrigation. Still, one can find authority in some of our best text-books for irrigation where fluid from ovarian or other cysts has escaped into the peritoneal cavity. ("Amer. Text Book Gyn.," p. 605.) Fluids of this character, as well as blood, are not septic. Kelly has shown that the contents of most pus tubes are sterile; it is therefore not essential in event of their escape into the abdominal cavity to remove all of it, and even if it was you could do it as effectually by dry sponging as by irrigation. In shock or great depression salt solution has been used in the peritoneal cavity to revive patients, but it could be accomplished by inframammary injection with much less danger.

In septic cases we have almost every authority for irrigation. Kelly gives the indications as follows: "Irrigation, although invaluable in some cases, should not be resorted to frequently. . . . When, however, the removal of a large adherent ovarian or myomatous tumor has been accompanied with considerable hemorrhage, or when a large pus sac has been ruptured in the pelvis and the pus has been found distributed among the intestines, and when the intestines have been sutured, then thorough irrigation is necessary for the purpose of diluting and removing infectious material which cannot be taken up so well by sponges." This is a fair statement

of the present use of irrigation by most operators, but I think even this is too broad and that the results would be better to entirely abandon irrigation in abdominal work. In making this statement I am fully aware that it is quite radical, and also that my own experience is not large enough to fully demonstrate its truth. I have, however, proven, at least to my own satisfaction, that thorough aseptic work can be done without irrigation in general surgical work, and I have better results without it, and I do not believe abdominal work will prove an exception, and my experience, as far as it goes, fully bears out the position here taken. There are also valid reasons for doubting its value. In the first place, it is almost impossible to wash solid or semi-solid matter from the peritoneal cavity. Dr. Frank F. Simpson says: "I have repeatedly poured several ounces of fecal matter into the abdominal cavity at autopsy and attempted to wash it out through a five-inch median abdominal incision. The cavity was not cleaned in this way, though quarts of water were used. Flakes were widely distributed." If the material we desire to remove is partially organized lymph, the water passes over it without the least effect, while it can be reasonably well wiped off with dry sponges. Solids or septic fluids containing bacteria or toxins are diluted and distributed over a greater surface of the peritoneum, thus favoring absorption. If the offending matter is in the pelvis and water is introduced, it is floated upward and brought in contact with these portions of the peritoneum from which absorption is most rapid. With dry gauze you can wall off the healthy area and sponge out the pelvis with much less danger of spreading the infection. Here again we should keep in mind what we can expect to do in these cases. We can only remove the fluid and infection on the surface. The parts more deeply invaded must be put in the best condition to resist farther infection and left to nature. Quoting again from Dr. Simpson, who, after assenting to the advantages of irrigation as established by Dr. John G. Clarke, says: "Yet it is not capable of universal application, for under some conditions it is unnecessary, under others it is positively harmful. . . The advocates of this method tell us that the chief advantages of normal salt solution thus

applied are that culture media and bacteria are more rapidly absorbed; that they are thus gotten rid of before growing numbers and increasing quantity suffice to endanger life." And he further reminds us that the cases in which irritation is contra-indicated, "those in which enormous doses of bacterial poisons are suddenly poured into the peritoneal cavity by rupture of abscesses, or of the hollow viscera, caused by accident or disease." Here we see in the very class of cases in which we are most tempted to use irrigation as an efficient means of getting rid of the poisonous material, we are running a great risk of favoring its absorption. From my own experience with the dry method, I am satisfied it is much safer to rely exclusively on dry sponging in these cases. The rapidly fatal termination in such a case after the employment of salt solution did much to shake my faith in the measure and lead to the adoption of the dry method.

In vaginal and intra-uterine work the dry method fully meets all requirements. In some of our later works we find continuous irrigation recommended during plastic operations. I have not used it for twelve or fourteen years, and had suppuration rarely. I can at this time recall only one case. This was a laceration of the pelvic floor, and two or three stitches suppurated. Most of the time I have used only dry sponging. Curetting for endometritis, abortions, and even the large puerperal uteri are treated in the same way. I first use a dull curette, carefully and gently in all, wipe out with sterile gauze until it comes out clean. For non-puerperal endometritis I use iodoform gauze—packing for from four to six hours only. In abortions and puerperal cases I prefer to pack with plain sterile gauze, after wiping, because it is more absorbent. In these cases a large quantity of gauze is used, packing the uterus very full, and this is removed in from four to six hours. At first it is a good drain, as it takes up all the moisture, but as soon as the meshes become clogged it acts as a plug and obstructs instead of favoring discharge. Excepting vaginal douches I never use a drop of water in these cases, and my results have been much more satisfactory than when I used irrigation. The latter is not only unnecessary but dangerous.

Dr. H. J. Garrigues, in a recent article, after mentioning two fatal cases from perforation of uterus by douche nozzle, says: "But even when the intra-uterine injection is properly made, it may do great harm. To begin with, if corrosive sublimate is used, there is danger of acute poisoning. I am, of course, aware that this drug is being extensively used for vaginal and intra-uterine injections both here and abroad; but I never use it for injections. Even less dangerous fluids in some cases cause fever. Bacteriological examinations have shown that shortly after an injection there are just as many bacteria as ever in the uterine cavity. They cannot be kept away by douching." This is in full accord with my own observations. I have seen serious accidents follow the intra-uterine douche. I have wiped out a puerperal uterus which had been irrigated a short time before, and the physician who washed it out said I removed more debris than he did with his irrigation.

For these cases I have gauze prepared in three sizes, packed in glass tubes, and I use one or the other, according to the size of the uterus. I find this a great advantage because it does not have to be handled at all. No one touches the gauze and it is packed directly from the tube into the uterus. This is a very simple device and I have found it of great advantage. It is not claimed that all cases of puerperal fever are cured by wiping out the uterus. It is only those in which the trouble is confined to the endometrium that we are able to relieve. When the infection has invaded deeper parts, more radical measures are required.



Wm. Bailey, M. D.:

I wish to declare against the indiscriminate *use of the vaginal douche*. I believe it is now carried on to such an extent that even women in health are almost universally using the vaginal douche. Within less than three months I heard a conversation between a number of women, in which one of them stated, to the horror of the others, that she had never taken a vaginal douche. They advised her to go to a doctor, and he would send her home to have a vaginal douche for cleanliness, if nothing else. While it may seem to be a quasi means of cleansing, I am thoroughly of the opinion that the

dangers from infection by the methods and means used, the uncleanness surgically of the ordinary douche apparatus is such as to endanger the woman more than any condition for which it is used. I am growing more and more opposed to its use, unless it is necessary by already infected conditions that must be combated. The faculty that the vagina has of guarding the portal at this important place is a happy circumstance, and, for the most part, should be left to itself. The cleanly woman is one who takes care of herself externally, avoiding the introduction of germs as far as may be by cleanliness; but nature, in my judgment, can take care of the inside of the woman better than any means that we can adopt. We can all recall cases where we think, if I may be allowed to introduce this point in obstetrics, great trouble has come from the usual habit of a vaginal douche after labor. I am at that point in my obstetric practice that I absolutely prohibit the vaginal douche being used unless I find conditions that warrant it for infection already set up. I believe a woman is safer without any douching than she is with it, as the douche is ordinarily administered.



R. P. R. Lyle, M. D.:

A careful study of the circumstances influencing the prognosis on behalf of the mother would serve as a valuable indication as to the line of treatment to be adopted in each individual case of *placenta prævia*. The conditions which should guide us as to treatment are: 1. Complete or incomplete *placenta prævia*. 2. The nature of the presentation. 3. Whether labor be absent or present. 4. The character of the pains and the size of the os uteri. 5. Whether the membranes are ruptured or not.

For purposes of treatment, most cases of *placenta prævia* may be divided into three classes as follows:

First, cases of incomplete *placenta prævia*, in which the first stage of labor is fairly well advanced; rupture of the membranes and the application of a tight abdominal binder will usually be found sufficient treatment, but in a rare case this treatment may not check the hemorrhage, when version (if

necessary) should be performed, and a foot brought down, leaving the subsequent delivery to nature, with the exception, of course, of slight traction on the foot should hemorrhage continue.

Secondly, cases of complete or incomplete placenta prævia, in which the os uteri is sufficiently dilated to admit two fingers. It is in the treatment of these cases that so much difference of opinion exists, some recommending the rapid evacuation of the uterus of its contents, irrespective of the injury which may be done to the mother's soft parts, and indeed of the risk to the patient's life; while others recommend the separation of the placenta from the uterine wall with the finger, a proceeding which many consider not only fatal to the child, but extremely dangerous to the mother, on account of the risk of septic infection.

The treatment which has been adopted by me for many years with marked success is as follows: In cases of central or complete placenta prævia the placenta is perforated with the fingers, version (if necessary) is performed, and a foot brought down, a tight abdominal binder applied, and the subsequent delivery left to nature, unless, of course, the continuance of hemorrhage should necessitate slight traction on the foot. In cases of incomplete placenta prævia under this heading, the treatment, with the exception of rupture of the membranes, instead of perforation of the placenta, is identical.

Now, when one considers that owing to the attachment of the placenta the cervix and lower uterine segment are extremely soft and vascular, and tear like wet blotting-paper, we must, I think, admit that any form of mechanical dilatation is scarcely justifiable, as it practically means mechanical tearing of the cervix, and when followed by accouchement forcé, the tear may extend right up into the uterus, or perhaps through the peritoneum, causing sudden death of the mother, or rapid death from post-partum hemorrhage.

The advantages of version and bringing down a foot are as follows: 1. It does away with the tampon and consequent danger of infection. 2. It allows early operation. 3. It arrests the hemorrhage with great certainty. 4. Gives time for the patient to rally. 5. Gives time for labor pains to set in and

consequent natural dilatation of the cervix. 6. Less danger of post-partum hemorrhage.

Thirdly, cases of placenta prævia in which the os uteri is not sufficiently dilated to admit two fingers. These cases are extremely rare, and should be converted into cases of the first or second class by plugging the vagina tightly with boiled cotton wool and the application of a tight abdominal binder until labor has advanced sufficiently to dilate the cervix, and then treat accordingly.

As soon as the diagnosis of placenta prævia is certain, no time should be lost in the treatment of the patient, because at any moment a sudden and severe hemorrhage may supervene, which would materially lessen the chances of successful treatment, and perhaps jeopardize the lives of both mother and child. Procrastination in the treatment of these cases is not only a source of the greatest anxiety, but often materially detracts from successful treatment, and may cause great remorse in the mind of the practitioner for not having acted sooner.



M. A. Tate, M. D.:

The use of ergot, during the first and second stage of labor, is a question still open for discussion.

There are, in my judgment, *two conditions*, and two only, *where ergot can be given* before birth of the child:

First, in a twin pregnancy where the entire utero-vaginal canal has been dilated in the passage of the first child, and second child is found to be a normal presentation. In such a case text-books will advise the judicious giving of ergot for two principal reasons, namely, to stimulate the tired uterus to again contract and by that means secure the expelling of the child.

The second indication for the use of ergot is in cases like the following: The woman tired and exhausted, labor pains feeble and of no expelling force, presentation normal, pelvis ample for birth of child—in other words, the dystocia due to a simple case of uterine inertia, with favorable surroundings and the os uteri sufficiently dilated. In such a case ergot may be used.

While ergot, used carefully, cautiously, and intelligently,

may here and there be a necessary drug during the first and second stage of labor, the indications for its use are so limited that, in my opinion, the art of obstetrics would be more perfect had this drug never been discovered.

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M. H. Richardson, M. D.:

I have used at one time and another various *methods to close the abdominal wall*, but have never seen any reason to give up the through-and-through suture. I should not be willing to accept as an axiom that this suture is more liable to suppurate than any other. As to hernias, while I can give no figures, the number that have occurred in my practice must be extremely small, otherwise I would be apt to hear of more. Of course it is possible that other men sew up my hernias as I sometimes do theirs, but they would be apt to let me know. I always notify other surgeons, when operating upon cases upon which they have worked previously. Of course in suppurating wounds the percentage of hernias is large, but I am surprised that it is not greater. In the first six months of this year in over 200 abdominal operations I can hardly remember a single wound infection, even in appendix operations. The last 260 intercurrent appendix cases all recovered without wound infection. The great disadvantage of the layer suture is that it leaves one or two dead spaces. I never saw a wound which might not become filled with blood. This is well shown in breast cases, where we are very careful to stop all oozing, yet it is common to see a hematoma. It seems to me that there is more liability for infection to take place where such dead spaces are present. In stout people I am apt to sew through and through and then sew up the aponeurosis separately. From 1886 to 1892 I used silver wire almost entirely. The great objection is that the buried ends are apt to irritate. Now I use nothing whatever but silk, and see no reason to abandon its use, and it certainly is excessively rare to have to take out a buried suture. I object to catgut because it does not bite; in tying a large artery with catgut it does not feel secure. I do not like to desert an approved method, and so I stick to silk.

As to disinfection, I think gloves are the greatest advance that has been made in surgery in late years. Previously we have seen every year one or two cases going to the bad inexplicably with general peritonitis. Now, with gloves, nothing of the kind occurs. In the last six months I have also used a gauze mask. I do not believe there is any very great danger of infecting a wound after a few hours. By that time it has become sealed up.

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D. E. Lewis, M. D.:

I have read in text-books about dragging a child through a conjugate of two inches or an inch and a half. Of course, the child was dead, and doubtless the accoucheur was a man of strength, possessed of patience and ingenuity. Nevertheless, such a practice is reprehensible. If the medical attendant is alive to his responsibilities, he should *examine every pregnant woman* by the eighth month. It requires no special skill, no perfection of technique, no extended pelvimetry to determine if the antero-posterior diameter is constricted so that there will be an interference with the process of labor. It is only necessary to introduce the finger in the vagina and to try to touch the promontory of the sacrum. If it cannot be felt, there is room enough for the passage of an average-sized head. If it can be felt, the extent of constriction is easily observed and suitable provisions can be made in advance for symphyseotomy or Cæsarean section.

An examination at the eighth month also permits the recognition of tumors and different abnormalities at a favorable time for their treatment. It permits the diagnosis of faulty presentations at a time when, by external version, they may be corrected, and, by the application of the Pinard bandage, an occiput-anterior presentation may often be maintained until the advent of labor.

Twenty-four years ago, when I began the practice of obstetrics, many women had so much false modesty that they refused to see their medical attendant until they were actually in labor. To-day they rarely object to a preliminary examination, if its object is properly explained. The fault now is more often with the medical man himself. He fails to appreciate the necessity of such an examination, and for that reason we still see cases of arm presentation, only too often after injudicious, ineffectual, and irrational attempts at delivery have seriously jeopardized the life of both mother and child.

Editorial.

THE CASE OF PRESIDENT McKINLEY.

Now that the authorized detailed account of the history of the late President's case, with report of pathologist, has been given to the medical public, criticism should give way to words of commendation for the zeal and labors of the attending physicians and surgeons. The operator, Dr. Matthew D. Mann, summoned to the Exposition grounds without a hint as to the purpose, was totally unprepared for such an emergency. The patient was quickly etherized in the small emergency hospital, which was only equipped for minor surgical work, and with such instruments as they happened to have, supplemented by Dr. Herman Mynter's pocket case, undertook an abdominal section under tremendous physical difficulties, to say nothing of the enormous element of personal responsibility. Every abdominal surgeon will appreciate the obstacles in the way of the operator attempting to suture a wound in the posterior wall of the stomach through a very thick abdominal wall without retractors, and in the failing light of half past five o'clock on a September afternoon. While the sun shone through the awning-covered windows, light was only admitted to the abdominal cavity by the reflection of a hand mirror held by Dr. Rixey; subsequently a movable electric light was arranged before the completion of the operation. The only question of technique that might arise was the subject of drainage. Before the wound was closed each of the surgeons was asked by the operator if he were perfectly satisfied with what had been done, and they all answered in the affirmative. Dr. Herman Mynter suggested drainage, but was outvoted, for in the judgment of the other surgeons they could see no indication for a "Mikuliz." It would, in the light of subsequent developments, be very interesting to know how the case would have terminated had Dr. Mynter's suggestion prevailed. Blood examination shortly before death showed no evidences of sepsis, and, aside from a suspiciously high pulse

rate and considerable prostration, it certainly did seem as though the distinguished patient would recover, and the public should then note the radical advance of present-day surgery over that of President Garfield's time. As has been stated before, the coolly calculating scientific mind must carefully weigh conditions and from them carefully make deductions that are not to be dominated by emotion or desire. Diagnosis is indeed a great factor in the minds of the laity. Diagnosis may be frequently changed without comment, but an error in prognosis, sanguine or otherwise, dwells longest in the minds of the interested watchers, and comes back upon the heads of the devoted attendants with great force, forgetting even the real good and great effort that has been made.

Book Reviews.

PRACTICE OF MEDICINE. Containing the Homeopathic Treatment of Diseases. By Pierre Jousset, M. D., Physician to Saint Jacques Hospital, Paris ; Professor of Clinical Medicine ; President of the Homeopathic Society of Paris, etc. Translated from the Third Revised Edition and Profusely Enlarged. Non-published French Edition, with valuable Additions and Annotations, by John Arschagouni, M. D. New York : A. L. Chatterton & Co., 1901. Price, Cloth, \$7.00. Half Morocco, \$8.00.

For fifty years the name of Pierre Jousset has been well known among the American homeopaths, and his contributions to our literature have always been studied with the greatest interest and profit. Jousset was the pupil of Tessier, the pioneer in the introduction of bryonia and phosphorus in pneumonia, and in 1841 an interne in one of the Paris hospitals under the famous Ricord. The work under consideration is the study of morbid conditions and their cure, and in their classification some of the older methods are employed. This has a very practical bearing, for the author appreciates apparently the evanescent character of latter-day pathology, and classifies diseases in an eminently practical manner, the grouping of which lends itself better to the treatment from a homeopathic standpoint. Thus, typhoid is classified with the fevers, and pneumonia with diseases of the chest, instead of with infectious

diseases. In a concise introduction the various methods of treating disease are considered: the modern germ theory, and its antiseptic treatment, the use of toxins and the employment of physiological products. The law of similia renders accurate the application of the drug, for it applies to symptoms and not to cause; therefore it can be applied independent of all hypotheses. "But," he adds further, "our materia medica is yet very incomplete, and there are diseases which resist the action of drugs employed according to law of similia. Empiricism is then the only applicable method." The greatest value of this book consists in clean-cut, concise indications for remedies which have in the author's wide experience proved valuable. As a rule not many remedies are considered under each disease, but the author makes the application very clear, and the reader is satisfied of the efficacy of the drugs in these instances by the feeling of confidence that the writer inspires. We speak quite advisedly when we say that Jousset's "Practice of Medicine" is the best and most practical contribution to the homeopathic practice of medicine in many years. The chaff is carefully separated from the wheat, remedies which are so carefully enumerated by most writers on therapeutics simply because they "have always been mentioned," and which are of doubtful utility, do not appear in this volume. Nothing appears, unless with explanation, that the author has not had to do with personally. The work of the translator, Dr. Arscha-gouni, leaves nothing to be desired. It is done in such a manner as to preserve the author's style as much as possible. Many valuable additions have been made by the translator as representing American progress in medicine, but these are kept different and distinct from the text, interfering in no way with the original, but bringing the work to the highest standard of scientific medication. The publishers have made a handsome volume of over one thousand pages, printed in good clear type on fine paper, the whole beautifully bound in half-morocco, and containing reproductions of photographs of the author and also the translator. Every earnest homeopath who believes in maintaining the well-proven precepts that made our school, and who desires to practice his profession along the line of truth verified, should give Jousset careful study.

A TEXT-BOOK ON PRACTICAL OBSTETRICS. By Egbert H. Grandin, M. D., Late Consulting Obstetric Surgeon to the New York Maternity Hospital, etc. With Collaboration of George W. Jarman, M. D., Gynecologist to the Columbus Hospital, etc. Third Edition, Revised and Enlarged. Illustrated with fifty-two full-page photographs and one hundred and five Illustrations in the text. Philadelphia, New York, and Chicago: F. A. Davis Company, 1900.

This edition has been enlarged by the addition of a chapter dealing with the anatomy of the female organs of generation and with embryology. So successful has this work been with the medical profession that it is hardly necessary to more than mention this new edition. The keynote of the entire work is "deal with facts," leaving theory for the clinical teacher or to be read at the leisure of the practitioner in other text-books. This book becomes as near an actual clinical demonstration as is possible. The various steps in the mechanism of labor are so well illustrated as to be readily followed, so also the various mechanical complications and obstetric operations. The text is rich in practical suggestions, and the physician will find ample assistance in a very practical way for the management of almost any case of pregnancy, and, as before stated, there is very little of theory, but very much of what the authors have in their experience found useful.

HAY FEVER AND CATARRH OF THE HEAD AND NOSE. With their Preventative and Curative Treatment. By E. B. Fanning, M. D. Philadelphia: Boericke & Tafel, 1901. Price, 75 cents By mail, 80 cents.

The author offers this little volume as a practical treatise on hay fever, largely developed from a study of his own case. His experiments are very interesting, and his observations valuable. Many cases could no doubt be relieved by a careful study of each individual along the lines suggested. The author believes the cause to be an acid condition of the blood with a decrease of its power to take up oxygen. Certain definite rules are laid down for the sufferer's guidance to ward off the annual attacks. These are to be followed in connection with internal administration of proper remedies, the indications of which are given in detail.

SELF-EXAMINATION FOR MEDICAL STUDENTS. P. Blakiston's Son & Co., Philadelphia, 1901. Price 10 cents. 3d Edition.

This little volume is a veritable interrogation point, and if perused will ask the student thirty-five hundred questions on medical subjects. Its popularity is evident, as it is now in its third edition. Being small and compact, it can be easily carried, and one could institute a quiz exercise during any of the many moments where delays and waits occasion what would otherwise be lost time.

Translations.

PROLAPSE OF THE FEMALE URETHRA.

Glaevecke (Münch. med. Woch.) reports a case of prolapse of the female urethra. A child, aged eleven years, in whose family history tuberculosis appeared frequently, showed a past history of rickets and infantile diarrhea. In early life she developed bronchitis, which led to a large bronchiectasis. She spat up large quantities of almost pure pus. No tubercle bacilli were found in the sputum on several examinations. In spite of all treatment the bronchiectasis remained, and the child's condition when first seen was one of emaciation and great weakness. Four weeks before admission the child was noticed to have some blood in the vagina. She complained of pain in micturition. On examination a tumor about the size of a cherry was seen between the crescentic hymen and the clitoris. At about the center of this tumor a small opening was found. On passing a sound through the opening it was found to lead into the bladder. The tumor was red, glistening, and bled on handling. The right side was more prolapsed than the left. The diagnosis being clear, Glaevecke attempted to replace the prolapsed urethra and keep it in place by means of a T-shaped bandage. As this did not succeed he proceeded to operate. After dividing the prolapsed portion in the central line into two lateral halves, he fixed the non-prolapsed portion with silk sutures, cut the prolapse around at the base, and sutured the cut edge of the remaining urethra to the outer skin. A Nélaton catheter was kept in place for seven days. The result was in every way satisfactory. Referring to the literature on the subject, he finds that this condition is very rare. He describes the condition, and turning

to the ætiology he finds that cystitis, cystic calculi, abuse of venery, and masturbation are given as causes. In inquiring into the cases, he states that cystitis is generally secondary; calculi have rarely been found in the cases reported; abuse of venery is an unlikely cause, since prostitutes, in whom the abuse is most practiced, have not been known to suffer; and in children the age is usually so young that masturbation can scarcely be thought of. On the other hand, ill-nourished, degenerate tissues (weak, debilitated children and old folk being most commonly affected), combined with strain, especially in coughing, whooping-cough, bronchiectasis, as in his case, are most likely to lead to a prolapse. He deals next with the symptoms, then the diagnosis, prognosis, and treatment. Of the latter, he finds that astringents and caustics have been recommended, but he believes in the majority of cases that the treatment is insufficient. Of the operations he mentions Emmet's "button-hole" operation, Israel's cautery operation (like that for rectal prolapse), Kleinwächter's removal of the prolapse and subsequent suturing the small ring from wound, and, lastly, Sängers modification of colporrhaphy applied to the urethra.

BREECH PRESENTATION DELAYED BY CON- GENITAL VAGINAL BAND.

Boissart and Coudert (*L'Obstétrique*) report a labor at the seventh month of a primipara, aged nineteen. She had been in labor since 4 p. m.; at 11 p. m., when examined, the breech was presenting; no fetal heart sounds could be heard. Vaginal exploration caused great pain, and two prominent folds of the mucous membrane could be felt in the upper third of the vagina. In defining the cervix the explorer's finger came across a broad, tough band which crossed the vagina obliquely from behind and above on the left, forward and downward to the right. At midnight the breech had reached the vulva. Traction was made on the left foot, then on the right, then on the groin, but, though the pains were strong, the fetus could not be extracted. The right hand, introduced into the vagina along the left thigh, detected the band passing under the popliteal space of both legs of the fetus, which was thus swinging on the band like an acrobat on a trapeze. This band was divided and secured by pressure forceps. Then the fetus, which weighed 4 3-4 lbs. and was partly macerated, came away with ease. Boissart and Coudert explain their theory why the fetus came to get the band caught under its knees instead of being forced down astride of the band.

LABOR PAINS SIMULATED BY MUCOUS COLITIS.

Thoyer-Rozat (*L'Obstétrique*) remarks that Budin and Bouchard have already noted how mucous colitis in pregnancy and the puerperium involves serious complications and leads to errors of diagnosis. He relates a case where a primipara was seized during the seventh month with abdominal pain. Several attacks of diarrhea had occurred during the pregnancy. On this occasion the uterus was felt to contract at each pain and effacement of the cervix was beginning. The patient was kept at rest, belladonna was given by the mouth and opium by the rectum. On the next day the pains continued, with fever and vomiting. Then it was found that the uterus did not contract at each pain, while above it, along the tract of the colon, lay a tender, painful area. A purgative was given, and in consequence a very painful action of the bowels occurred, abundant masses of mucous casts passing. More were evacuated after the administration of purgatives for several days. Gradually the intestinal mischief settled down and pregnancy continued till term. Thoyer-Rozat attributed the contractions of the uterus at the beginning of the attack to absorption of intestinal toxins in the blood through the vessels of the colon.

THE GYNECOLOGY OF APPENDICITIS.

Brandt (*Norsk Mag. f. Lægevid*) describes thirteen operations on women for chronic appendicitis, all successful. In two of the same cases cholecystotomy was performed at the same time for gallstones. Three of the patients had been subject for years to severe dysmenorrhea. The symptoms completely disappeared, which Brandt considers remarkable, as there were no adhesions between the appendix and the tubes and ovaries, nor was any neurosis present. One patient underwent removal of her appendix in the sixth month of pregnancy, owing to recurrent inflammation, which made her very ill. The bulky uterus was much in the way of the operator. The patient recovered and was delivered spontaneously at term. In two similar cases where the patient was pregnant, the appendix, less severely affected, was not removed till after the delivery and convalescence from the puerperium.

HYSTERECTOMY BY THE SACRAL METHOD.

Sachs (*Centralbl. f. Chir.*) points out that hysterectomy by the sacral method, though far less preferable in most cases to

the abdominal and vaginal method, is still indicated under certain exceptional conditions, as, for instance, extreme constriction of the vagina, extension of malignant disease to the vagina, a tumor so large that it cannot be extracted by the vaginal method, and firm adhesion of the diseased uterus to surrounding structures.

CHOREA OF PREGNANCY.

L'Echo Médicale.—The part played by the pregnant condition in the causation of chorea has from time immemorial led to much discussion, and it has even been urged that pregnancy plays no part in its causation (Gilles de la Tourette), the chief argument used by this observer being that chorea so seldom recurs in following pregnancies. This, however, is not absolutely true, for Gentin has described two cases out of fourteen in which the chorea recurred in two successive pregnancies, and other cases are not very rare in medical literature. The author takes up the position that pregnancy plays a great part in the causation of chorea. There is no doubt that cases of chorea of pregnancy are rare, 15 cases out of 15,638 pregnancies, for instance, as collected by Gentin. Primiparity and previous chorea in infancy have considerable influence on its production; twelve to fifteen per cent. of choreas of pregnancy have had chorea in infancy, according to Gentin. Fear, anger, and emotion generally are recorded as exciting causes. Hysteria and its various manifestations are often present or have been noted in the cases of chorea of pregnancy, and there is no doubt that hysteria is a predisposing cause. The theories as to how pregnancy acts in setting up chorea have been very numerous, such as cerebral anæmia from the hydræmia of pregnancy, the embolism theory (only applicable to a few cases), the rheumatic theory (which is not tenable because many cases have no previous rheumatic history), the reflex nervous theory, etc.

Of late years the work of Bouchard, Tarnier, Pinard, and others has drawn much attention to the auto-intoxication of pregnancy or the hepatic toxæmia of pregnancy. This has thrown much light on the pathology of pregnancy, and is now believed to be the cause of many of the manifestations of pregnancy, such as salivation, vomiting, pruritus, and among the more serious ones eclampsia and chorea. It is of importance to note that chorea, like all the other manifestations of the hepatic toxæmia, is more common in first pregnancies. Whatever the actual cause, there is no doubt that a true chorea of pregnancy exists, and has symptoms like those of chorea in

infancy. It commonly begins within the first four months, and the choreiform movements spread successively through the face and upper limbs to the lower limbs and trunk; at the same time, voluntary movements become clumsy, and if the legs are affected, walking is difficult and jerky. Respiratory and pharyngeal spasm occur, rendering breathing and swallowing difficult.

In slight cases sleep is not interfered with, but in the more serious cases the loss of sleep often induced is a cause of great weakness, and has a most unfavorable influence on the prognosis. Mental troubles sometimes appear, certain cases becoming troublesome to manage and irritable, others become absolutely indifferent to their surroundings, and some have hallucinations. The prognosis, again, is grave in these cases. As a rule, the chorea disappears after labor at once or within a month. Many of the cases are particularly serious, especially those associated with anæmia, digestive disturbances, mental troubles, respiratory spasm, or insomnia. The mortality is given variously by authors, as from seventeen to twenty-five per cent. Probably this is too high, because many slight cases never seek advice, and of those who die some have intercurrent disorders which cannot be attributed to the chorea.

FOREIGN BODY OBSTRUCTING PARTURITION.

Czarnecki (*Deut. med. Woch.*) records a very rare form of obstruction to the act of childbirth. He was called to a woman in labor, and was told by the husband that a "tin box" would have to be removed before the baby could be born. Although he took this to be a joke, he took forceps with him. On arrival he found a primipara, aged twenty-seven, of good muscular development, in labor. The os was scarcely the size of a two-shilling piece, and through it he found he could not diagnose the presentation, because of a foreign body which lay between it and the head of the fetus. This foreign body proved to be a tin box, having a "long-rounded" shape, and it lay transversely across the os uteri. As the head could not pass the obstacle, he proceeded to remove it, which he did by turning it so that the lid presented, taking the lid off, and, securing the body of the box with a pair of bone forceps, he extracted it by careful rotary movements. He discovered later that the os uteri was incapable of dilatation beyond the size of half a crown, as there were some dense fibrous scars at the right lower surface. On division of these scars the rest of the parturition took place naturally, and the patient made a good

recovery. She admitted that she had, as a child of twelve, after her first menstrual period, passed the tin box into the vagina to prevent a further hemorrhage. She had later on attempted to withdraw the box, but in vain. She menstruated regularly, and at the age of twenty-five, after having been married for six months, aborted in the fifth month of pregnancy. She had kept her secret, and had not even told her husband of the box. Shortly before the abortion she had felt the box in the vagina, but, after this had taken place, to her surprise it had disappeared. She was certain that it had not passed through the vulva. Thus the tin box, which measured about 4 inches in diameter and 1 3-4 inches in height, had been in the vagina for over thirteen years, and in the uterus for a year and a half, without producing any bad symptoms.

THE TREATMENT OF PRURITUS VULVÆ.

Siebourg (*Centralblatt für Gynäkologie*) states that he was led to try the effect of subcutaneous injection of normal saline solution as a means of curing pruritus of the genitals, because he had noted that the skin was insensitive, or at all events less sensitive, over the site of puncture for the injection of salt solution for other conditions. In the author's opinion nearly all cases of pruritus vulvæ have a local causation: either from some abnormality of the uterine or vaginal secretions on the one hand, or some abnormality of the urine, i. e., diabetes, kidney disease, jaundice, etc., on the other. Also he notes among external causes old ring pessaries, thread-worms, pediculi pubis, and cutting of the vulval hair. Even if these causes be removed, the pruritus may remain as a result of the hyperæmia induced by scratching. B. S. Schultze lays stress upon this, which he calls a "circulus vitiosus": the parts irritate, therefore are scratched; as a result they begin to irritate again, and are further scratched and rubbed. Chronic pruritus vulvæ truly is a secondary disease, kept up by the rubbing and scratching started by the original cause. The author suggests the following general treatment for pruritus: First, to try to find the cause by examination of the genitals, urine, etc., and remove it, if possible. Next, the regulation of the diet, forbidding alcohol and all condiments, and advising plenty of exercise, so that by becoming tired the patient will be more likely to sleep. Especially the patient is recommended not to be much alone, because when other people are present scratching is not so likely to be made use of. The nails must always be kept cut short. The author mentions two cases in which the disease always became worse as the

nails grew long. The patient must wash morning and evening with cold water and soap, and after urination. After this washing at night, the patient is directed to place the following ointment on the genitals spread on lint, covered with a layer of wool and kept in position by a T-bandage: Cocaine, 2.0; orthoform, 1.5; menthol, .5; acid carbolic, 1.0; and vaseline, 20 parts. By this means irritation is prevented, and the patient cannot scratch the parts protected by the dressing. It was in very chronic cases that subcutaneous injections were first tried. Very weak solutions of cocaine and carbolic acid were used first, but later the author discovered that it was not the particular drug used which produced the effect, but the mere stretching of the skin and the tearing of the nerve-endings by the bulk of fluid injected which produced the loss of sensation in the parts affected. The injections were made through a hollow needle with an irrigator, and even as much as one-third liter of normal saline solution was in this way injected under the skin of the vulva and perineum. The author obtained very good and lasting results, but states that his cases were not numerous enough to speak positively about. This method of treatment requires further trial, especially as it seems to be without danger.

LACERATION OF VAGINA IN LABOR.

Ludwig (Wien. klin. Woch.) has prepared a valuable monograph on this subject. He publishes notes of cases already reported and discusses the theories of the causation of this complication. In 58 cases the laceration was posterior in 17, postero-lateral in 5, anterior in 14, antero-lateral in 4, and lateral in 9. In the remaining cases the rent was circular and more or less complete. The chief complications are laceration of the peritoneum or bladder, and prolapse of the abdominal viscera. The latter, as well as the passage of the child or placenta through the laceration, may interfere with the passage of the forceps. Prognosis is grave. Out of 47 cases, 16 died of peritonitis, 6 of hemorrhage, 5 from uncertified complications. The child must be delivered speedily by the forceps, but craniotomy, decapitation, or evisceration may be needed. Abdominal section is usually needed when the fetus has passed more or less into the abdominal cavity through the rent. It is dangerous in such a case to deliver it through the rent. The laceration must be treated by suture from the vaginal side in order to check the hemorrhage; but when the laceration runs up high and there is persistent bleeding from its upper part, abdominal section is needed. In Ludwig's own case it was then necessary to do a hysterectomy, though usually the bleed-

ing point may be secured without extirpation of the uterus. When the hemorrhage is stopped the bruised edges of the rent must be trimmed. Drainage is necessary. Sometimes the obstetrician has to rely on the tampon.

TREATMENT OF PRIMARY VAGINAL CANCER.

Kroenig (*Arch. f. Gynäk.*) reminds us that this rare disease is often inoperable from the first; that is, in cases where it infiltrates with the whole vagina, converting it into a rigid canal. There is a localized variety, however, which in two-thirds of all reported cases arises in the posterior wall. Simple excision is quite useless. Extirpation of the entire vagina with the uterus has proved on the whole unsatisfactory; recurrence nearly always occurs. Out of two cases operated on by Kroenig, one patient died ten weeks after the operation from return of the disease; the second was living, free from recurrence, five years after the operation. The rectum is rapidly involved, and the tissues of the posterior part of the bladder soon become infected. The bladder, especially its portion in close relation to the vagina, cannot be safely excised. But, as general surgeons have shown us, the rectum can be freely excised with relative ease and safety. Kroenig considers that parasacral incisions are not needed; the rectum can easily be reached from the vagina. The vagina and uterus may be extirpated first, the rectum set free and its upper part drawn down, then a portion is excised and the contents united (*Zweifel*). Friedrich's plan is more suitable in some cases. The posterior wall of the vagina is resected, and the corresponding part of the rectum set free by lateral incisions which are prolonged till the entire caliber is liberated. Douglas' pouch is opened, and the uterus and part of the anterior vaginal wall removed, then the portion of the rectum which was adjacent to the vagina is resected. Care must be taken not to disseminate the disease, the incisions being made far from the cancerous deposit.

THE PATHOGENESIS OF ECLAMPSIA.

Stroganoff (*Zeits. f. klin. Med.*) endeavors to prove that eclampsia is a general acute infectious disease, and that the theory that the condition arises out of a primary renal disease cannot be sustained. According to his opinion the nephritis which frequently accompanies it is secondary. In support of this view he makes the following statements: Eclampsia is a general disease and affects different organs, the brain, lungs, liver, kidneys, spleen, heart, pancreas, blood, in degrees of

varying intensity. The symptoms of the short incubation stage are headache, dulling of the senses, affection of the sight, etc. The disease is very acute and may be fatal in a few hours; it is accompanied by fever which cannot be explained by the convulsions. According to the observations of many authors it is rarely repeated, one attack appears to confer immunity. Stroganoff also finds support for the theory in the frequently concurrent disease of the infant, presumably contaminated through the placental circulation. He also states that cases occur in series in the large lying-in establishments, and a house-to-house infection may be traced. He supposed the cause of the disease must be of high virulence, and only finds its most favorable ground for development in lying-in women and infants.

ABSCESS OF UTERUS AFTER ABORTION.

Brindeau (*L'Obstétrique*) writes of a woman who was admitted into hospital on the evening of January 31, having been delivered in the afternoon of an embryo two months and a half old. The abortion was attributed to a fall. The patient was very weak, with a dry tongue, small pulse, and high temperature. The abdomen was painful, but not tympanitic. Two days later the abdominal pain persisted, and there was fetid vaginal discharge. The curette was employed, but only a little broken-down tissue was removed. The woman died on February 4. On opening the abdomen in the pathological theater a great quantity of pus escaped. The peritoneum and pleura were lined with false membranes. The pelvic cavity was full of pus, containing streptococci and the bacillus coli. On the anterior aspect of the uterus, which was as big as at the second month of pregnancy, lay a swelling as big as a hen's egg. Dark pus escaped through a minute orifice in its wall. The abscess, for such the swelling was, had developed in the middle of the uterine wall, and a small track was found running between the tumor and the uterine cavity—clearly a perforation made by an instrument.

THE EVILS OF THE OVARIAN PEDICLE.

Rosen (*Przegląd Lekarski*) shows from statistics that the usual pedicle of an ovarian tumor or of a diseased tube or extrauterine sac, tied in one piece, is a source of danger. Hemorrhage, free and fatal, or else in the form of a hematoma liable to suppurate, is not rare. Obstruction, usually late, has been noted nine times in 665 recent cases. Parametric and

peritoneal exudations are very common in thick pedicles, and greatly retard convalescence. Jordan of Cracow modifies the customary treatment of the pedicle. It is held with one or two forceps, and divided on the distal side of those instruments. The big vessels are then secured; the forceps are afterward relaxed, and any vessel that bleeds is tied. The peritoneal folds of the pedicle are sewn over its bare surface. Out of 51 cases under Jordan, before the adoption of the new method, exudations occurred in 23 (45 per cent.). Since then, out of 56 cases where the pedicle was treated as above described, exudations were noted only in 5 (9 per cent.); whilst in 26 cases where the pedicle was tied in one piece there were exudations in 14 cases (23 per cent.). The advantages of the new method are self-evident.

A SIMPLE AND CERTAIN OPERATION FOR PROLAPSE.

A. Duhrssen (*Cent. fur Gynäk.*): The value of vaginal fixation as a remedy for prolapse cannot be overlooked. Duhrssen thus states the basic principle of this operation for cystocele and anteфлекed uterus: First, to avoid the abnormal elevation of the bladder, and second, to introduce to some extent the uterine body between the vaginal wall and the bladder as an organic cushion which will prevent recurrence of the cystocele. He gives an illustrated description of the operation which is also adapted to a retroflexed uterus, and claims that always in these cases delivery by the natural way is possible by the use of the vaginal Cæsarean section; that a simple incision in the posterior vaginal wall and in the anterior uterine segment will suffice to provide a passage for a living child.

A NEW METHOD OF TREATING CHRONIC PELVIC EXUDATES.

O. Polano (*Ibid.*) recommends a new method of treating chronic pelvic exudates by hot air, similar to that used for chronic joint disease. Cases of recent inflammation are excluded. He reports several cases thus treated with very satisfactory results. In one a hard, abundant exudate in the right iliac fossa, extending to the navel, was completely reduced in twenty treatments. In another case of chronic infiltration, a sensitive tumor, the size of a small apple, after 12 applications of hot air, appeared only as a slight thickening of the tissue. The apparatus is described, in which the patient is placed and subjected to a temperature of 120° for twenty min-

utes on the first day, with daily increase reaching, in some instances, to 135° or 150° for forty-five minutes. In some cases a speculum of some material not conducting heat is introduced into the vagina, remaining there during the baking. A cold, damp cloth may cool the head during the process. The observations made show that the hot air therapy causes a rapid and powerful absorption of the exudate. Further experience will determine whether this method will serve as a permanent addition to the treasury of gynecologic remedies.

PALLIATIVE TREATMENT OF INOPERABLE UTERINE CANCER.

Küstner, *Centralbl. f. Gynäk.*, says that one of the most trying symptoms of the advanced stages of uterine carcinoma is the offensive and penetrating odor which is evolved. In order to palliate this condition, he proposes to close the vulvar orifice, and by means of a vagina-rectal fistula divert the discharge into the rectum, where it may be more under the influence of the will, and hence regularly and effectively discharged. The operation employed consists of the following steps: (1) the removal of all necrosed tissue from the os by the thermocautery; (2) the application of a tampon (to which a thread is tied) impregnated with alcohol; (3) the formation of a recto-vaginal fistula and suturing of its edges with catgut; (4) thorough cleansing, vivifying, and joining together the vestibule and its walls by hair sutures. The tampon may be removed on the fourth day. The newly formed fistula must be kept open, and any tendency towards obliteration obviated by dilatation. Should hemorrhages occur, the vagina should be packed through the fistula, and the usual water irrigations employed. The rectum and anus will need antiseptic attention in order to keep them clean and free from irritation.

SPONTANEOUS INVERSION OF THE UTERUS AFTER EACH OF TWO LABORS.

Gilbert (*St. Petersburg med. Woch.*) reports the case of a woman, aged thirty-six, who at her fourth labor, bore after five hours. The placenta followed spontaneously in fifteen minutes, and she had no after-pains. An hour after delivery she rose, and went down a long and steep stair to bring water from a well a hundred yards away. She carried it upstairs on her shoulder, and at the top fainted. When she came to and crept

to bed she noticed that a large body protruded from the vagina. There was no bleeding. Gilbert, who was called in after seeing a scarlet fever case, disinfected as well as he could, and found a child's head swelling with clots, sand and dirt sticking to it. He cleansed it with carbolic lotion, and returned it easily by pressure on the fundus. She was ordered to stay two weeks in bed, and the rest of the puerperium was normal. Two years later he was summoned to her with the message that she had again been delivered spontaneously, and that everything had come down, and she was bleeding. The distance was long, and he found extreme acute anæmia, with impaired consciousness and restless tossing. Reposition was easy. Bleeding had ceased, but, in spite of free injection of salt solution into cellular tissue and rectum, and the use of other measures, she died twenty-five minutes later.

RUPTURE OF THE UTERUS.

Cristeanu (*Ann. de Gynéc. et d'Obstét.*) reports three cases treated by abdominal hysterectomy: (1) 7-para, admitted at term, true conjugate, 9.3 cm. Head in left occipital position, fixed at brim. After eight hours, the cervix being dilated, the membranes were ruptured. No tendency to engagement. Two and a half hours later, after a hot bath, the pains became more painful, and then ceased. No abnormal symptoms, pain, faintness, or weakness. Fetal heart not heard. No blood from the vagina. Called in the night to put on forceps for the inertia, Cristeanu found a rupture of the uterus at the left lower part. He turned with much difficulty on account of the clinging of the intestines to the legs. A ten-inch loop and some omentum appeared at the vulva immediately after the issue of the placenta; the omentum prolapsed after being returned, and had to be ligatured off. The belly became tender and distended, and vomiting set in. Fourteen hours after the rupture coeliotomy was performed. There was a complete tear of the uterus and left cul-de-sac, the left round ligament and uterine artery were torn, and on the right the peritoneum was torn up to the level of the kidney. Total hysterectomy was done, the bleeding points being ligatured. She had first chloroform, and then ether. Drains were put in. Vomiting continued for a day, and there was some pulmonary congestion, but for the next two weeks she did well. The progress was then temporarily disturbed by painful swelling in the right inguinal fossa. Discharged at thirty days.

(2) A woman, aged thirty-eight, who had eight difficult labors, was, after eleven hours' labor, seized with severe

abdominal pain, faintness, vomiting, and vaginal bleeding. Admitted to the Maternity cœliotomy was done, the fetus and placenta were removed, and total hysterectomy performed. There was vomiting and tenderness for three days after, but the rest of the convalescence went well. The uterus was torn on the left side, and there was free bleeding into the peritoneum. True conjugate, 9 cm.; albuminuria before the operation.

(3) Three-para, with two previous difficult labors. A midwife perforated the membranes, and a doctor called to put on forceps did not succeed, and the patient was sent into hospital exsanguine. The cord was prolapsed and the child dead. Cristeanu turned and delivered the head with forceps. During these operations no blood escaped outward. There was a rupture on the left, and the placenta was extracted from the abdominal cavity. Cœliotomy was done, the round ligament was found torn, and the peritoneum torn in both iliac fossæ. The uterus was removed. There was a little sloughing in the vaginal stump. All three cases had repeated injections of saline solution.

Herrgott (*Idem*) relates another case where the patient died of shock. She was at term of her seventh pregnancy, and the waters having broken three days before, she was admitted after forty-eight hours of labor, with the abdomen very painful, the uterus hard, and the left arm prolapsed. Evolution had begun. The dilated cervix was spasmodically contracted on the fetus, and did not relax under anæsthesia. Embryotomy was exceedingly difficult, and took two hours. At one point some blood flowed from the vagina, and Herrgott was struck by the appearance of the uterus, which seemed as if divided into two parts, separated by a groove. There was a rupture on the left. In spite of the bad condition of the patient Herrgott thought it best to do a cœliotomy. He found an irregular tear, and removed the uterus by a Porro operation.

PUERPERAL INVERSION OF THE UTERUS.

Kain (*Pester med-chir. Presse*) reports the case of a woman, aged twenty, who, in January, 1893, was delivered of her first child (breech). The midwife rubbed the fundus and then pulled strongly on the cord, and the patient had sudden noise in the ears, and then lost sight and hearing. Kain found her unconscious, pale, with bleeding mass between her thighs. After no long disinfection he peeled off the placenta and pushed the mass within the vagina. The immediate change in her con-

dition was astonishing. She began to whimper, the paleness left her face, the cyanosis her lips, and the pulse could be felt. Reversion was not easy, and he had to dilate the cervix with the coned hand from above. The fundus gradually returned. There was no after-bleeding, but the patient was eight weeks in bed. At her second confinement in 1895 Kain had to remove the placenta manually. The third, in 1897, was entirely normal. Cohn (*Rev. de Chir.*) describes the case of a young primipara in whom the midwife pulled on the cord to extract the placenta. She felt a lump in the vagina and had free bleeding, which was controlled by hot douching, but continued for two months. After this it was much less, save at the menstrual periods. The woman became very anæmic. There was fetid discharge between the bleedings. Attempted reduction under chloroform failed, and patient was sent into hospital. Median cœliotomy was made, and the uterus and tubes removed without the ovaries. The arteries were ligatured. The patient did well.

EXTEMPORARY CURETTAGE IN OUT-PATIENTS.

From lack of beds in the civil hospital at Odessa, Boukoëmsky (*Ann. de Gynéc. et d'Obstét.*) has been led to treat curetted patients as out-patients. Recent abortions were treated when the patients first came; in endometritis the uterus was stuffed with highly iodoform gauze and the curetting done next day. Almost half the cases needed dilating to Hegar 9 to 10 to admit the curette. Before the stuffing and before the curetting the genitals, both internally and externally, were scrubbed with soap in alcohol, and then with 1 to 500 formol solution. After curetting four to five liters of this solution were run through the uterus and iodine injected (alumol 2.5, alcohol, tinct. iodi aa 25). The vagina was then stuffed with weak iodoform gauze. Patients were given ergot in powder (0.5 to 1 gm.), kept in bed with ice on the hypogastrium for some three hours, then sent home and told to lie up for four days and to come back on the fifth. In 1900 Boukoëmsky treated 5593 gynecological out-patients; 154 were curetted—116 for endometritis, 35 for recent abortion, and 3 for diagnosis. Of 116, 102 were completely cured and 14 had some further bleeding, treated and cured by intrauterine injections of tr. iod. Eight cases of endometritis after abortion had parametritis posterior, but the curetting did no harm. Even when the tube was finger thick and the ovary as big as a pigeon's egg no harm followed. From the good results Boukoëmsky has determined to continue the practice.

INDEX VOL. XXIII.

- Abdominal hysterectomy for cysts and solid growths of the ovary, 291
 — operation. Charles G. Davis, 173
 — section, treatment of damaged ureter in, 399
 — wall, method to close. M. H. Richardson, 569
 — wound: hernia through suture tracks, 494
 Abortion, 491
 —, induction of, 186
 —. N. E. Aronstam, and Louis J. Rosenberg, 177
 Abscess of the uterus, 489
 — after abortion, 583
 Acetonuria in pregnancy, labor, and the puerperium, 484
 Actual eclampsia, treatment of. Chas. M. Green, 271
 Acute inversion of the uterus, 392
 Adenoid disease (erosion) of the cervix in pregnancy and labor, 298
 Adiposis dolorosa. A peculiar form of fatty degeneration. Case with five illustrations. William Davis Foster, 111
 Etiology of uterine myomata. Wm. Cash Reed, 352
 Anæsthesia of the spinal cord during labor, 289
 An anomalous case. No visible connection between blood vessels of cord and placenta. F. H. Huron, 445
 Announcement, 286
 A peculiar case. H. C. Van Buren, 219
 Apis mel. in nephritis of pregnancy, 88
 Are not basiotripsy and embryotomy unsurgical? 185
 Argentum nit. in ovarian disease, 87
 Arsenic in infantile eczema, 88
 Asphyxia neonatorum. E. G. Zinke, 265
 — of the newborn. Prof. B. S. Schultze, 84
 Asthma and the puerperium, 193
 Athyreosis in children, 396
 Atmokaussis, or vaporization of the uterus, 394
 Bacon, C. S. Prevention and management of infection of the breasts during lactation, 549
 Bacteriology in obstetrics and gynecology. James Johnstone, 231
 Baryta carb. in rachitis, 87
 Belladonna in uterine hemorrhage, 88
 Bimanual examinations. L. G. Baldwin, 273
 Bishop, E. S. Post-partum hemorrhage, 248
 Book reviews, 178, 281, 380, 472
 Breech presentation delayed by congenital vaginal band, 576
 — H. R. Spencer, 367
 — value of prophylaxis, 102
 Breast, disease of the. James Bell, 280
 — infection, treatment of. C. S. Bacon, 160
 —, 153 cases of diseases of the. C. Knox Shaw, 446
 Breasts should be supported. Geo. L. Brodhead, 58
 Bronchiectasis in children. Bert J. Maycock, 35
 Bunte, Louis E. Marasmus, 441
 Busenbark, Lucy M. Nausea and vomiting in pregnancy, 119
 Cæsarean section for fibroid: subsequent hydatid disease, 389
 —. P. D. Covington, 376
 Calcified ovarian fibroma; extreme chronicity, 196
 Cancer of the breast, operative treatment of. Arthur E. Barker, 159
 — of the ovary and its treatment, 293
 — of the uterus. J. N. Love, 62
 Cancerous uterus, removal of the, 389
 Carcinoma uteri, 191
 Catheters to produce abortion. Den-slow Lewis, 85

- Cellulitis and peritonitis. Jos. U. Barnhill, 261
- Chloroform anæsthesia. A. F. Werner, 373
- Chorea of pregnancy, 578
- Christian scientists, 152
- Chorea of pregnancy. G. T. Engelmann, 376
- Chronic pelvic exudates, a new method of treating, 584
- Circulatory apparatus in pregnancy, 396
- Clark, John G. Percussion for the detection of cystic or loculated fluids in the abdomen, 348
- Cobb, Joseph P. Poliomyelitis anterior acuta—to what extent can it be cured? 520
- Confinement, cases of. Henry Gibbons, Jr., 161
—, treatment preparatory to. E. G. Freyermuth, 107
- Congenital transmission of tuberculosis through placenta, 202
- Conservatism in gynecology—when? Wilfred E. Fralick, 413
- Cornual pregnancy: mummified fetus, 486
- Criminal abortion, symptoms and treatment of. H. E. Kinyon, 223
- Crosby, C. R. Mental impressions the cause of monstrosities, 145
- Croucher, Alex. H. A case of retroversion of the gravid uterus, 551
- Cuprum acetum in epilepsy, 87
- Cysts of placenta, 204
- Danforth, L. L. Puerperal sepsis, 318
—, Rules for the guidance of nurses to prevent infection of the birth canal, 361
- Day, J. Roberson. Whooping-cough, 147
- Delayed respiration. F. W. Taylor, 378
- Dental caries in pregnancy, 202
- Dentition and its disorders. W. W. Gilbert, 435
- Diet during lactation, 301
- Dilatation of the cervix, 287
- Diphtheria, medical treatment of. Charles Bruce Kern, 26
- Diseases and injuries of children. John McLachlan, 467
- Douche, vaginal use of the. Wm. Bailey, 565
- Dry method of abdominal work. Edwin Walker, 562
- Dysmenorrhea. C. D. Mosher, 372
— membranacea, 106
- Dystocia from hydatid disease of pelvis, 395
— polycystic fetal liver, 498
— uterus bicornis, with contracted pelvis. K. C. McIlwraith, 166
—, treatment of. Edward P. Davis, 474
- Early spinal disease, treatment of. Edmund Owen, 65
— tubal pregnancy; difficulties in diagnosis, 103
- Eaton, Cora Smith. Slit operation under cocaine, 421
- Echinococci simulating ovarian dermoid, 94
- Eclampsia. E. Gaulard, 475
—, remarkable success in the treatment of, 97
—, the pathogenesis of, 582
- Ectopic gestation. C. B. Kinyon, 426
— and intra-abdominal hemorrhage, two cases. W. A. Forster, 38
- Eczema. M. A. Morris, 481
- Eliminative organs, defective action of. Edward Reynolds, 556
- Elongation of the cervix; descent of the uterus. J. F. Percy, 365
- Embryotomy with the decapitator (sichelmesser), 384
- Emmet, T. Addis, and the Woman's Hospital, 154
- Endometritis; how frequently a causative factor in dysmenorrhea. Florence N. Ward, 205
- Enteric fever in children. A. D. Blackader, 74
- Enterocolitis. Wm. E. Fitch, 65
- Ergot, two conditions for. M. A. Tate, 568
- Examine every pregnant woman. D. E. Lewis, 570
- "Exothyropexy" in a newly born infant, 102
- External examination. Wm. J. Smyly, 262
- Extraction of living twins nineteen minutes after death of mother, 98
- Extra-uterine fetation. A. H. N. Lewers, 475
— pregnancy—abdominal section. Edwin A. Neatby, 539
—, Algernon T. Bristow, 83
—: twisted pedicle, 106
- Eye troubles connected with the albuminuria of pregnancy. E. W. Clapp, 479

- Face presentation. J. B. Swift, C. M. Green, 366
 —. Richard Douglas, 56
 —, results. Malcolm McLean, 56
 Fate of prematurely born, artificially "delivered" children, 483
 Fetus retained two years in the uterus, 391
 —, the position of the, in the uterus. H. D. Jenks, 278
 Fibro-myoma and pregnancy, 192
 Finger better than the curette in abortion, 388
 First duty of the obstetrician. E. S. Wright, 554
 Forceps delivery. George W. Davis, 269
 —, the application of. L. Bentley, 258
 —, the application of. Wm. B. Church, 60
 Foreign body obstructing parturition, 579
 Forster, W. A. Ectopic gestation and intra-abdominal hemorrhage. Two cases, 38
 Foster, William Davis. Adiposis dolorosa. A peculiar form of fatty degenerations. Case with five illustrations. William Davis Foster, 111
 Freyermuth, E. G. Treatment preparatory to confinement, 107
 Fralick, Wilfred G. Conservatism in gynecology. When? 413
 —. Gastrectomy or esophago-enterostomy, 343
 Gastrectomy, or esophago-enterostomy. Wilfred G. Fralick, 343
 George, Rebecca Rogers. The prevention of perineal lacerations, 21
 —. What I do for the mother after the birth of the child, 523
 George, W. E. Parturition, first and second stages, 133
 Gilbert, W. W. Dentition and its disorders, 435
 Gonorrhea in the genital tract of a newborn child, 198
 Grooved director for vaginal hysterectomy. Uterine elevating forceps. E. D. Ferguson, 90
 Gynecology of appendicitis, 577
 Hamlin, F. W. Placenta prævia, 331
 Hartman, W. Louis. Right ovarian troubles with appendiceal complications, 534
 Hawkes, A. E. Some clinical cases, 240
 Hedges, Samuel P. Injuries to the genital tract, 508
 Hemorrhage at eighth month; rupture of sinus circularis, 95
 — in a case of placenta velamentosa, 196
 Hernia simulated by tumor of round ligament, 486
 Hernias in infancy; the woolen-yarn truss. E. S. Boland, 171
 Histology of the liver in pregnancy, 199
 Holliday, W. W. A knot of the umbilical cord, 175
 Hot douche in pelvic inflammation. T. C. Ferguson, 159
 Hourglass contraction. A. D. Stevens, 267
 —. Lucy W. Gardner, 171
 Huron, F. H. An anomalous case. No visible connection between blood vessels of cord and placenta, 445
 Hydatid cysts of the broad ligament, 484
 — in recto-vaginal septum, 385
 Hysterectomy for cancer of the cervix. John G. Clark, 76
 — by the sacral method, 577
 — in puerperal fever, 199
 Immense dilatation of the bladder caused by the incarceration in the pelvis of a retroverted gravid uterus, 493
 Inanition. F. C. Stewart, 423
 Infection of the breasts during lactation, prevention and management of. C. S. Bacon, 549
 Influenza in childbed, 488
 Inguinal hernia, treatment of. W. B. Coley, 277
 Injuries to the genital tract. Samuel P. Hedges, 508
 Inoperable carcinomata of the uterus, 386
 Inoperable uterine cancer, palliative treatment of, 585
 Interpretation and significance of heart murmurs in infants and children. Edward R. Snader, 401
 Intraperitoneal rupture of ovarian cyst, 295
 Intra-uterine crying, 190
 Intravenous injections of normal saline solution in puerperal fever, 188

- Inversions puerperal, of the uterus, 586
- Jeffery, George Clinton. A reasonable protest against immediate perineorrhaphy, 303
- Johnstone, James. Bacteriology in obstetrics and gynecology, 231
- Kern, Charles Bruce. Medical treatment of diphtheria, 26
- Kinyon, C. B. Ectopic gestation, 426
- , Puerperal infection and its prevention, 210
- , The pathology of the puerperium, 39
- Kinyon, H. E. Symptoms and treatment of criminal abortion, 223
- Labor complicated by deformities of pelvis. L. C. Sammons, 531
- , pains, simulated by mucous colitis, 577
- Laceration of the vagina in labor, 581
- Lacerations of the cervix uteri. C. D. Palmer, 374
- Leake, E. N. Diagnosis and treatment of uterine cancer, 126
- Lithopædion in umbilical hernia, 490
- Local uterine hæmostatics, 495
- Lycopodium for uterine fibroma, 88
- Malignant adenoma, 195
- , disease of the uterus. M. A. D. Scharleib, 82
- , the early recognition and treatment of. Homer I. Ostrom, 9
- Marasmus. Louis E. Bunte, 441
- Maycock, Bert J. Bronchiectasis in children, 35
- McLachlan, John. Diseases and injuries of children, 467
- Menstrual and pre-menstrual dysmenorrhea. George Haultain, 78
- Menstruation, excessive and prolonged. Eugene C. Gehrung, 560
- , time of first. E. J. Engelmann, 558
- Mental impressions the cause of monstrosities. C. R. Crosby, 145
- Mesenteric cyst, 95
- Metropolitan physician, 256
- Misuse of anæsthesia, the use of antiseptics. M. Murray, 266
- Mitral insufficiency. Henry D. Chadwick, 478
- Mollities ossium, the ovary in, 397
- Myoma in diabetes, treatment of, 301
- Nausea and vomiting in pregnancy. John M. Batten, 375
- , Lucy M. Busenbark, 119
- Neatby, Edwin A. Extra-uterine pregnancy—abdominal section, 539
- Nephritis gravidarum, 393
- Nephritis of pregnancy, evolution of the, 297
- Non-infectious fevers. Louis Burchhardt, 74
- Normal cases of labor. Julia C. Strawn, 557
- , labor, the management of. George R. Southwick, 499
- Nose, relations between the, and the female sexual organs, 292
- Obstetrical practice. J. F. Baldwin, 559
- Occipito-posterior position in vertex presentations. Richard Alcock, 275
- , presentations. H. V. Sweringen, 260
- Operation for double pyosalpinx. Lucy Waite, 480
- Operations for fibroid and pregnancy, 203
- Osmotic pressures of maternal and fetal blood, 390
- Ossifying encondroma of ovary, 302
- Ostrom, Homer I. The early recognition and treatment of malignant diseases of the uterus, 9
- Ovarian pedicle, the evils of the, 583
- Painless labors, 491
- Parsons, J. I. Persistent metrorrhagia, 226
- Parturition: first and second stages. W. E. George, 133
- Pelvic examination and diagnosis by the general practitioner. George W. Roberts, 338
- Percussion for the detection of cystic or loculated fluids in the abdomen. John G. Clark, 348
- Perforation, difficulties after, 290
- Perineal lacerations—the prevention of. Rebecca Rogers George, 21
- Perineorrhaphy, a reasonable protest against immediate. George Clinton Jeffery, M. D., 303
- Perineum, rupture of the. L. Bentley, 157
- Persistent metrorrhagia. J. I. Parsons, 226
- Pineapple juice in infant feeding. John W. Kyger, 556

- Placenta prævia**, 197
 —; air in veins, 104
 —. E. J. Kempf, 169
 —. F. W. Hamlin, 331
 —. R. P. R. Lyle, 566
 —. Gustav Kolischer, 71
- Plantar reflex** in the newborn infant, 96
- Podophyllum** in post-partum period, 87
- Poliomyelitis anterior acuta**—to what extent can it be cured? Joseph P. Cobb, 520
- Position after abdominal operations**. D. W. Springer, 268
 — for delivery. F. S. Clark, 261
 — for using forceps. C. B. Reed, 77
- Posterior colpotomy**. Charles G. Cumston, 72
 — displacements. A. M. Cartledge, 80
- Post-mortem Cæsarean section**, 188
 — hemorrhage, cases of. B. G. Thomas, 263
 —. E. S. Bishop, 248
 —. G. F. Blacker, 155
 —. John W. Byers, 67
 —, to prevent, 84
 — retention of the membranes, 200
- Pregnancy and Alexander's operation**, 398
 — and diabetes insipidus, 391
 — and tuberculosis. M. L. Bernheim, 473
 — complicated by acute yellow atrophy of the liver, 198
 — is complicated by cardiac disease. Wm. Gillespie, 270
 — with gangrenous fibroid of uterus, 197
- President McKinley**, the case of, 571
- Primary cancer of fallopian tube**, 104
 — carcinoma of fallopian tube, 485
 — insufficiency of milk secretion, 193
 — tuberculosis of the vagina, 294
 — vaginal cancer, treatment of, 582
- Prolapse**, a certain and simple operation for, 584
 — of the female urethra, 575
 — of urethral mucous membrane, 99
- Protecting the perineum** from laceration, 383
- Pruritus vulvæ**, treatment of, 580
- Pseudocyesis**. J. T. Schell, 478
- Puerperal eclampsia**, 399
 — fever, treatment of, 299
- Puerperal infection and its prevention**. C. B. Kinyon, 210
 — insanity. Alfred Worcester, 364
 — neuritis, 200
 — sepsis, 398
 —. L. L. Danforth, 318
 —. R. P. Ranken Lyle, 63
 —, the treatment of. George R. Southwick, 30
 — septicæmia from tubal disease, 294
- Puerperium and interstitial fibroid**, 201
 — the pathology of the. C. B. Kinyon, 39
- Pyosalpinx**, danger of a, 397
- Radicular nævus**, 386
 Reed, Wm. Cash. *Ætiology of uterine myomata*, 352
- Resuscitation**, cases of. John J. Mulheron, 57
- Retention of dead fetus to term**, 93
- Retroversion of the gravid uterus**. Alex. H. Croucher, 551
- Right ovarian troubles with appendiceal complications**. W. Louis Hartman, 534
- Roberts, Geo. W.** Pelvic examination and diagnosis by the general practitioner, 338
- Rules for the guidance of nurses to prevent infection of the birth canal**. L. L. Danforth, 361
- Rupture of a fetal sac into an ovarian cyst**, 194
- Salpingitis**—drainage of uterus in treatment of, 204
- Sammons, L. C.** Labor complicated by deformities of pelvis, 531
- Scarlet fever and measles**. Henry R. Hopkins, 86
- Scarlet fever and measles**—inhalations as preventive of, 100
 —. W. S. Marcy, 161
- Secretory function of the placenta**, 190
- Serum treatment of diphtheria**. Ewing Marshall, 70
- Shaw, C. Knox.** Breast, 153 cases of diseases of the, 446
- Shaw, Frank H., and Neatby, Edwin A.** Uterine myomata and pelvic peritonitis, 137
- Simultaneous normal and extra-uterine pregnancy**, 187
 — tubal and normal pregnancy, 189
- Single placenta in case of triplets**, 106
- Slit operation under cocaine**. Cora Smith Eaton, 421

- Snader, Edward R. Interpretation and significance of heart murmurs in infants and children, 401
 Some clinical cases. A. E. Hawkes, 240
 Southwick, George R. The management of normal labor, 499
 —. The treatment of puerperal sepsis, 30
 Spleen in female pelvis, 400
 Spontaneous amputation of tubes in an adult, 296
 — evacuation of extra-uterine pregnancy, 302
 — inversion of the uterus after labor, 585
 Stewart, F. C. Inanition, 423
 Strabismus in young children, treatment of, 195
 Sulphur at the menopause, 89
 Surgical perforation of the uterus, 490
 Symptoms and treatment of criminal abortion. H. E. Kinyon, 223

 Tertiary syphilis appearing in pregnancy, 105
 Torsion of gravid fibroid uterus; enucleation; pregnancy not disturbed, 385
 — of pedicle of pedunculated fibroid, 101
 — of pediculated uterine fibroid, 298
 Transplanted dermoid cyst, 295
 Triplets; single placenta, 289
 Tubal gestation, 288
 Tuberculosis and pregnancy, 194

 Ultimate fate of a malignant syncytioma of the vagina, 483
 Umbilical cord, a knot of the. W. W. Holliday, 175

 Uncontrollable vomiting in pregnancy, 497
 Urethrocele, 485
 Uterine atresia, 383
 — cancer—diagnosis and treatment of. E. N. Leake, 126
 — dilator, the. A. G. DeWitt, 69
 — fibroids. Homer Gage, 272
 — myomata and pelvic peritonitis. Frank H. Shaw, and Edwin A. Neatby, 137
 — occlusion, an undescribed form of, 494
 Urine secreted, the amount of. Henry J. Kreutzmann, 264
 Uterus, the backward position of the, 487

 Vaginal discharges, importance of examining, 257
 — and abdominal cœliotomy in tuberculous peritonitis, 296
 — hysterectomy in uterine prolapse, 290
 Van Buren, H. C. A peculiar case, 219
 Version for contracted pelvis, 496

 Ward, Florence N. Endometritis; how frequently a causative factor in dysmenorrhea, 205
 What I do for the mother after the birth of the child. Rebecca Rogers George, 523
 When a vaginal examination should be made. C. M. Taylor, 176
 Whooping-cough. J. Roberson Day, 147

 Yeast in the treatment of leucorrhœa, 483

